

In the shadow of British plans to withdraw from UNESCO, John O'Leary discusses current criticisms of the organization with its controversial director-general, Amadou-Mahtar M'Bow (page 10)

Guru of monetarism or secret socialist? Fanatical moderate? Paul Flather profiles education secretary SIR KEITH JOSEPH and looks further into the enigma (page 11)



The glamour of "backwardsness": Tom Nairn examines British attitudes to the MONARCHY. What are the chances of a fully mature and responsible republicanism? (page 13)

New starts, new resolutions and new diaries. A prize QUIZ for the start of another year and term (page 15)



Margaret Boden reviews three new books on the revolution in ARTIFICIAL INTELLIGENCE. Does the advent of "Turing's man" represent a further evolutionary step, or merely a technological sophistication (page 16)

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HIGHER EDUCATION SUPPLEMENT
Priory House, St John's Lane, London EC1M 4BX. Telephone 01-253 3000

Sir Keith's easy ride

Sir Keith Joseph has always seemed to enjoy a remarkably good press - maybe better than he really deserves. Certainly the contrast with the private contempt shown to his predecessor Mr Mark Carlsle and the barely suppressed bitterness which the last Labour Secretary of State Mrs Shirley Williams had to suffer on occasions is very marked.

For Mr Carlsle's sins against higher education were those of omission, a rather dozy failure to forestall the cuts proposed by the Treasury that contradicted his promise of level funding, while Sir Keith's are sins of commission, because he has been actively implicated in the creation of the pernicious ideology that has required this mistaken disinvestment in Britain's future. As for Mrs Williams, who was characterized as a left-wing meddler by her myopic critics (shades of Grunwick and all that), her alleged sins have been transformed into acknowledged virtues - in the double sense that her desire to encourage flexibility in higher education (continuing education and all that) has become an almost universal orthodoxy, and that with maddening hindsight her values and hopes now seem so close to those of higher education's mainstream.

Yet while his two predecessors were given almost no benefit of the doubt Sir Keith is given the full benefit, and as much again. His critics are subdued and apologetic. There is a strong reluctance on the part of even the most venomous to indulge in *ad hominem* argument. His good intentions are accepted almost without reserve. His intelligence is praised, occasionally at rather sycophantic length. Sir Keith's sermonizing views about the need to improve quality, to reward excellence and entrepreneurship, are allowed to float free from the oppressive realities which his policies have imposed on higher education as if his views and these realities did not inhabit the same world. Even more - his almost totalitarian interference in what is taught at the Open University or the Polytechnic of North London, quite unprecedented behaviour by a Secretary of State, by some perverse arguing is added to his credit. It is excused and even praised as evidence of interest and commitment.

Why does Sir Keith Joseph get such an easy ride? One reason certainly is that he has been seconded by two exceptionally able junior ministers, Mr William Waldegrave and Mr Peter

Brooke. Of course it is much easier for junior ministers to shuffle off the ultimate responsibility for a Government's policy than for Cabinet ministers who make that policy. But Mr Waldegrave did embody a seriousness and intelligence that seemed more substantial and rigorous than his boss's, while Mr Brooke displays a genuine niceness that is rather rare in modern politics. But the puzzling difference between Sir Keith's reputation and those of his two predecessors can hardly be explained by the fact that compared to Mr Waldegrave and Mr Brooke, Dr Rhodes Boyson had a knockabout demoniac quality and Mr Gordon Oakes lacked charisma.

A second reason is that Sir Keith is widely regarded as interested, obsessed maybe, in education. Most holders of his office, it is said, have been disappointed men and women who really wanted a real political job but had to make do with the Department of Education and Science. True, maybe, of Mr Carlsle and Mr (now Lord) Fred Mulley? But probably not true of Mrs Williams and certainly not true of Mr Edward Short, also now in another House with another name. But true or false, fair or unfair, the myth has become established that Sir Keith is the first Secretary of State for Education since Mr Anthony Crosland who believes his job in the Government is an important one. From this myth all kinds of assumed virtues flow.

But is it a good thing that the Secretary of State should be interested in education? May it not be safer in a democratic and pluralist society if he (or she) is a bit of a philistine? Two points may be relevant. First, the job of the Secretary of State like those of the chief education officer or the vice-chancellor is to make the best use of available resources to achieve recognized educational goals. It is his job to regenerate or rewrite those goals. The job is about resources not about values - more so than ever in these days of cash-limited restraint. So the spectacle of Sir Keith as an educational philosopher is cause for apprehension not approbation. It suggests he crucially misreads his role.

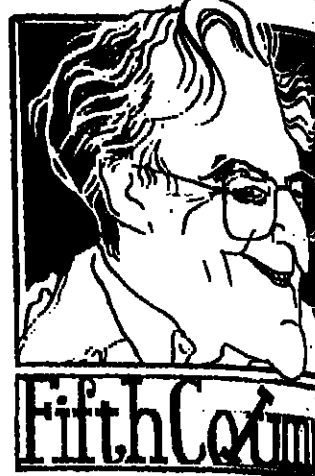
Second, Sir Keith's "enthusiasm" for education is too often expressed in punitive raids against the OU and PNL or in warnings to teachers to pull up their socks. As such it is directly comparable to the "enthusiasm" shown by the authorities in the Soviet

Union for modern literature and art. This urge to interfere, to censor, to reform in a perverse sense a recognition of importance, a painful back-handed compliment. But in that case long live indifference? A liberal society must not only acquiesce in but encourage entrenched autonomies of dissent. It is not a question of whether Sir Keith Joseph is right or wrong but of whether any Secretary of State should use his ever expanding power of patronage to translate his own prejudices and priorities into intellectual orthodoxy. That should never be the game.

The third reason is that Sir Keith is generally acknowledged to be very clever. After all, he was a Fellow of All Souls even if his contemporaries do not remember him as the brightest of the bunch. Phrases like "arguably the best brain in the House of Commons" (page 11) rise naturally to the top of conversation. In politics, of course, intelligence can be an ambiguous benefit. Whatever it is that drives Mrs Thatcher along it is not intellectual brilliance, while Lord Wilson who is undoubtedly a very clever man in donnish terms was not an especially successful Prime Minister.

In higher education naturally intelligence is regarded very differently. It is accorded an almost unqualified merit. The result may be that higher education has become the victim of a deceptive but paralyzing syllogism in the case of the present Secretary of State - in higher education intelligence is good; Sir Keith is intelligent; therefore Sir Keith is good (for higher education)? Yet it is certainly naive to imagine that the intellectual mediocrity of Sir Keith's intelligence, had he become a scholar, are freely transferable to his actual position as a politician.

The strange truth may be that higher education has given Sir Keith such a smooth ride despite the baleful consequences of his policies because his intellectual style is so familiar and reassuring. His rather brittle *in vitro* intelligence, that occasionally seems slightly but decisively displaced from the real-time knowledge of the practical world, is all too reminiscent of old-fashioned donnishness. This paradox of course is that Sir Keith's intellectual message as opposed to his style is that such old-fashioned donnishness must be abandoned in the struggle to build a brave new high-tech world.



OF all the contradictory qualities that characterized the end of the 19th century, none was more absurd than the of student grants. I am, like other academics, writing a (which promises to be a book) which everybody behaves like character and discovers in like the animals on *Animal* that everything is just the way was before the revolution. I will ever get round to finishing even, to be honest, starting it would be hard put to find a situation more upside down than one.

Sir Keith Joseph has himself as a crypto-socialist, mined to ensure that the parents pay less than at present the richer more. Although I of those who will pay more already have - I cannot disagree with that policy.

The utterly astonishing thing that the students do, what happened to the traditionally wing National Union of which must now, in opposition, Keith, join forces with the Tory parents to force him to hand?

Perhaps all the parents are than we thought. We once believed in the polytechnic that were enabling more boys and from working class homes to have a chance of a higher education. Our students are first generation students and we thought that came from the poorer homes seems that we were wrong.

Having paid up dutifully my share of the grants for my children, I have no great sympathy for better-off parents who say they not afford it. My overdraft would cost me, but at least I would prefer to bear the burden and leave my children in the normal way they probably will.

I do not think I should pay because fees are a nonsense and have been for a long time. The device has no connection with the cost of courses. It is, I think, a device for spreading the cost of local authorities but since they rate support grant it is a better exercise in bookkeeping, it is better to abolish them altogether.

Just as absurd is the fact that system discriminated against our most talented students - the part-timers, the sub-degree adults, education and education students.

The part-timers and sub-degree adults are just as favoured as the adolescents who get a grant and a start that will mean a more prosperous life. More inexplicable is the amount that is while your children adults legally at the age of 18 remain children as far as government concerned until they are 25.

The system does need a fundamental review, even though it be too late for me to benefit. I doubt if many students have just because their parents have more. For the oddity is the way we have in this country the generous system of student grants the world, the take-up of education by the relevant age group is the lowest.

It cannot be just the money counts! Perhaps it's the parents. Or the national perversion, my novel.

Patrick Nuttall

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This little piggy... London's Smithfield meat market as seen by Mr Kim Furrokh, a photography student at the London College of Printing. The picture is part of a portfolio on the subject of the capital's commodity markets.

Quick answer urged on cash switch

by Ngaijo Crequer

The University Grants Committee has told the Government it must have a decision by the end of February on whether extra funds will be provided for the shift to science and technology, if student places are to be made available for the end of 1985/86.

And in a separate move this week, Salford University told ministers from the education and industry departments that April was the deadline for a decision on whether Government money will be provided. The UGC wrote to universities in November expecting a Government go-ahead and asked universities to put in their bids. The response was very constructive and they are keen to proceed.

The UGC has also written to a lot of industrial concerns to test their support for the UGC proposals. But the committee has heard nothing on what resources are likely to be committed

industry, a vital component in both sets of plans. The Cabinet has still to make a final decision: originally expected before Christmas, on whether to make about £40m available to shift resources in the universities towards technological, scientific and engineering courses.

The ministers are also keeping waiting Salford and Cranfield Institute of Technology - both with separate plans for information technology institutes - for a decision on whether Government money will be provided. The UGC wrote to universities in November expecting a Government go-ahead and asked universities to put in their bids.

The response was very constructive and they are keen to proceed. The UGC has also written to a lot of industrial concerns to test their support for the UGC proposals. But the committee has heard nothing on what resources are likely to be committed

and time is running out.

This week Professor John Ashworth, vice-chancellor of Salford University and his top officials met Mr Peter Brooke and Mr John Butcher, education and industry ministers, and their advisers. Also present was David Fairbairn, director of the National Computing Centre, which is joining the Salford bid.

The Salford party emphasized that expectations had been raised, it was necessary to maintain the enthusiasm and momentum of support from industry, and their proposal - for an institute producing nearly 600 graduates a year - was timely.

Mr Brooke acknowledged the impressive evidence of industrial commitment and said the Government was currently considering the case for extra resources. The Salford proposal would need to be considered against others, he said.

Jarratt in the red

The universities have been warned that the budget for the six efficiency inquiries now being carried out may be overpriced.

Vice-chancellors were told at a main committee meeting of the Committee of Vice-Chancellors and Principals just before Christmas that the largest estimates of expenditure for the efficiency inquiries were in excess of those drawn up in May.

The main reason for the increase, for which figures were not given, was the increased costs of the management consultants. The consultants are looking at efficiency in the universities of Edinburgh, Essex, University College London, Loughborough, Nottingham and Sheffield. Three particular themes are being examined: financial management, buildings and space, and purchasing of equipment.

The operation is being monitored by a steering committee chaired by Sir Alex Jarratt.

It was originally given £300,000 by the Department of Education and Science.

The CVCP officers proposed that some form of levy of all universities might be desirable if the budget was exceeded. But one university, Salford, protested strongly on the grounds that all universities should not have to bail out the six because of inefficiency in the running of efficiency studies.

The proposals were not acted upon and the CVCP has now written to the six for their latest estimates of cost.

PCL loses £20,000 on Libya

by David Jobbins

A deal with the Libyan government which went wrong has saddled the Polytechnic of Central London with losses which may top £20,000 and possible legal action by lecturers.

Pressure is growing for an external audit team from the Greater London Council to investigate the way in which the deal, which was to establish a college in Malta to prepare Libyan students for higher education in Britain and the West, came to grief.

According to the polytechnic, the Libyan secretariat of education approached PCL early in 1983 to seek its help in establishing a technical institute at the Lester Barracks in Hal Far, Malta. PCL already had links with

Libya, having signed an outline agreement of cooperation with the Bright Star University of Technology at Brega in June.

The Maltese deal was signed in October 1983, authority for the first phase to go ahead having been given the previous April and details of a bank account to be opened on the island ratified at the same time.

The agreement included a standard termination clause under which either party could drop out if there was a breach of contract and failure to rectify within 60 days.

Although under the contract equipment for the 400 students was to be provided by the Libyans, it was according to continued on page 3

Academics opt for closures and fewer students

by Peter Scott

Teachers in higher education oppose a policy of "equal misery" if the cuts continue and believe instead that vulnerable institutions should be closed to avoid damage to the rest of the system.

This surprising finding emerges from a survey of academics' attitudes carried out for *The Times* by NOP Market Research. The survey was based on a 743-strong random sample interviewed in the middle of last term, 359 in universities, 234 in polytechnics and 150 in colleges of higher education.

Half believed that if the cuts continued into the 1990s or the total number of students fell significantly institutions should be closed. Just over a third supported "equal misery" instead. Scientists and engineers believed most strongly in the need for closures, while teachers in colleges of higher education and in arts and social science were most likely to support "equal misery".

NOP

Half also believed that if cuts continued institutions should reduce the number of students in order to protect staffing standards. Just over a quarter disagreed and believed that staffing standards should be cut in order to be able to teach the same number of students.

Even faced with a serious decline in the number of 18-year-olds, more teachers believed that higher education should cut back the number of students admitted than that entry standards should be lowered to keep up numbers. On both these issues scientists

lists were anxious to defend present staffing and entry standards and non-scientists most ambivalent.

The survey found that only a quarter agreed that the University Grants Committee and the National Advisory Body were performing satisfactorily. An overwhelming majority of university teachers believed that the membership of the UGC should be more representative, while the most common complaint about the NAB was that its members were not disinterested individuals.

On a whole range of controversial issues teachers seemed determined to support the status quo. Twice as many disagreed as agreed with the suggestion that the dual support system should be scrapped and replaced by a more selective research policy and a majority believed that dual support should be extended to the polytechnics and colleges.

There was strong support for tenure, and also for the suggestion that non-university teachers should enjoy the same protection. The present regime of external examining in universities was regarded as an adequate check on academic standards by an overwhelming majority, and polytechnic and college teachers strongly supported the suggestion that external validation should continue in their sector. A surprising two-thirds majority supported the idea that higher education should devote more attention to part-time students. But its progressive effect was undermined by a strong reluctance to agree that resources should be diverted from mainstream teaching and research into continuing education.

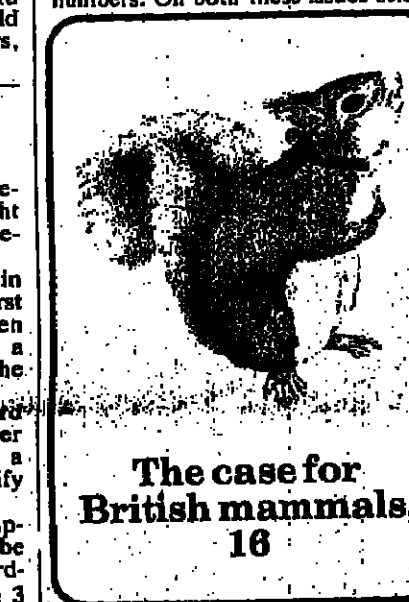
Three-quarters disagreed with the proposal made in the Leverhulme final report for two-year pass degrees. Most teachers in polytechnics and colleges also disliked the idea that the non-university sector should devote more resources to two-year and sub-degree courses.

The survey showed that most teachers in higher education had no doubt that the cuts had a serious effect on both teaching and research. Barely one in ten felt that the cuts had had little or no effect.

Perhaps as a consequence of this strong belief Conservative support has slumped in higher education. Only one in five voted Conservative at the General Election and today the proportion of Conservative votes has slipped to only 17 per cent.

The Alliance with 34 per cent, was higher education's favourite party with Labour stuck at 26 per cent. Although a third of both scientists and non-scientists would vote for the Alliance, there was much stronger support for Labour among the latter.

Full details, pages 12-13
Leader, back page



The case for British mammals, 16

Ticket for Reagan's space station costs Britain dear

by Jon Turney

Science Correspondent
British science may pay a heavy price for UK participation in the proposed American space station, now set to be approved at a meeting of European research ministers later this month.

Astronomers in the UK are very worried that new Government money to buy a ticket for the space station will be confined to the industrial sector, and the Science and Engineering Research Council will have to bear associated scientific costs from its existing budget.

Britain's representative at a meeting of ministers from the member coun-

tries of the European Space Agency (ESA) on January 30, Mr Geoffrey Pattle of the Department of Trade and Industry, will be asked to approve a package of measures: European participation in the \$8 billion manned space station President Reagan wants the US to build for the 1990s' new development of the ESA's separate £85m a year budget for scientific space missions.

The last part of the parcel is the worry for science policy-makers. Ministers are moving to approve an increase in the ESA mandatory science budget, with the DTI favouring 5 per

cent a year instead of the 7 per cent the agency is seeking and the DES more inclined to limit the increase to 3 per cent per annum. Either way, there may be no extra money in the science budget to meet the increased cost.

In Britain, unlike other European countries, the money for science is paid separately, through the astronomy, space and radio board of the Science and Engineering Research Council. The ASR board now pays around £13m a year to the Paris-based agency. If the SERC had to find the full increase, it would face a rising, earmarked commitment just when it is trying to shed such commitments to

increase flexibility. The board is already under pressure from the rising dollar as it maintains an observatory in Hawaii. Members argue that if the SERC says more to the ESA without being able to increase spending in Britain it will simply subsidize other countries' investments without any return.

The council is treading a delicate path between insisting that extra money must come from outside the council, and supporting the expanded ESA science programme. The added, particularly, is that many scientists believe the space station itself is unnecessary for research.

Letters to the editor

Sir Keith's remarkably good press

Sir, - Perhaps one reason why Sir Keith Joseph gets "such an easy ride", at which your leader writer marvels (*THES* January 11), is precisely because he "enjoys a remarkably good press" - good, in this context, meaning sycophantic. You observe: "His (Sir Keith's) critics are subdued and apologetic. There is strong reluctance on the part of even the most venomous to indulge in *ad hominem* argument. His good intentions are accepted without reserve." Well, as chairman of the further and higher education subcommittee of the country's largest education authority - the Inner London Education Authority, I treat the so-called good intentions for public sector education of old Harrovian and fellow of All Souls Sir Keith with an astounded barge pole.

I make such robust comments from time to time, which most of the media studiously ignore. For example, when the Government announced its mischievous plan to hijack a quarter of

l.e.s.s.' further education and deliver it to the Manpower Services Commission, I said in an *ILEA* press release: "Sir Keith, education's horizontal heavyweight, watches despairingly as his department's powers and duties are dismantled. We demand to know why he sat idly by as the MSC colonized areas of education over which it has no experience and, judging by its performance with the Youth Training Scheme, little understanding." At a press conference, to which your newspaper was invited, I and six *ILEA* college principals made further scathing comments on the proposal.

Last November I attacked Sir Keith's malevolence in singling out *ILEA*'s adult education as a particularly monstrous victim of rate-sapping as follows: "Sir Keith serves in a Government which uses mass unemployment as an arm of policy; yet he has the impudence to expect *ILEA* to provide classes for the casualties of his monetarist infatuation - while propos-

ing cuts to our budget which would slash spending on adult education by three-quarters." "Old Harrovian Sir Keith lives in a dream world. He sneers about bridge for pensioners on the rates but the reality is that the fastest growing area of our provision is for the unemployed and for women, ethnic minorities and the handicapped."

My statements on these and other matters - pugnaic, yes; venomous, no - reflect, I believe, widespread fury at the way Mrs Thatcher and her yes-men are systematically dismantling the 1944 education settlement. It is a pity that your newspaper and other opinion leaders do not speak out as vigorously.

Yours sincerely,
NEIL FLETCHER,
Chairman, Further and Higher Education subcommittee,
Inner London Education Authority.

Sir, - Your assertion (*THES*, January 11) that it would be "safer" if the

secretary of state were not interested in education and a bit of a philistine is astonishing. You say it is not his job to regenerate or rewrite goals: like a chief education officer or vice-chancellor he should use resources to achieve "recognized goals".

Was R. A. Butler wrong to introduce new goals in his Education Act? Was David Eccles wrong to set against the advice of his civil servants and educationists and force a new conception of technical education upon the institutions and industry?

You are asserting that a minister of the Crown should have no option other than to follow the advice he gets from the quangos, corporate bodies and the unions in education that is contrary to all precedent in constitutional law and history, and the negation of government. That is why I find your assertion astonishing.

Yours faithfully,
NOEL ANNAN,
London NW8

A robust constitution

Sir, - Tom Nairn's suggestion (*THE* January 11) that conditions exist for a serious British revolution seems to disregard the fact that there is no demand for such a radical constitutional change in the eyes of the present three main parties. Though he refers in passing to education, he does not remember there was hardly a schilling of support for the maverick king and that his acts of commission and omission were demonstrated that they were well content with the traditional favour of the house of Windsor wished it to continue. Edward's was sunk without trace.

In practice constitutional change is immensely difficult in Britain. It is due in part to the fact that the history as Le Roy Ladurie remarks in your columns recently is by a native standards a success story.

A significant that Nairn disregards the main the international scene. When a Labour government was for reasons of electoral advantage a reform called devolution, it was at the time, "It will all end in tears". In general our political life knows that they have enough problems without embarking on an abolition of the monarchy in quest of the advantages of a republic.

Yours sincerely,
KENNETH BURGIN,
21 The Hawthorns,
Whitehall Road,
Woodford Green,
Essex.

Author's mark

Sir, - In shortening a draft of review of *Gale and Chagnon Psychology and Social Action* (*THES*, January 4) in order to make it to the required length, I have combined two sentences, which would like to correct.

The sentence, "they (psychologists) diagnose the difficulties, make a 'diagnosis', and as a result a 'dysfunctional' individual 'becomes functional'" would have better been left as two sentences: "They diagnose the difficulties and make a 'diagnosis'. Even if it is too late to suppose that the 'dysfunctional' individual automatically 'becomes functional', Gale and Chagnon generally optimistic about 'interventions'." Both versions then end with the quotation from the book: "The psychologist has a special unique role to play in helping people to personal distress."

Yours sincerely,
MICHAEL BULLOCK,
Professor of Social Sciences,
Loughborough University.

Letters for publication should be short as possible and written on one side of the paper. The editor has the right to cut or amend the necessary.

Most professional associations are doing to teachers have acknowledged that pedagogic inefficiency is a thing that must be removed from schools, colleges and universities. It has, quite properly, demanded any appraisal be undertaken by a reliable and scientific way.

There have been existing developments elsewhere in Europe, the USA and even in the USSR which ought to be considered in the continuing debate. In 1975 I published a unique self-appraisal system utilizing a computer to assist the class teacher to identify his or her own strengths and weaknesses. This is presently (and voluntarily) in use in institutions in the UK as well as elsewhere in the world where assessment of teachers performance is usual.

Yours sincerely,
DR TERENCE K. KEEN,
Vice Principal,
Queens College of Education (UK).

Science cash 'set to fall again'

by Jon Turney
Science Correspondent

The research councils' science budget will start falling again in real terms after 1985/86, following Sir Keith Joseph's approval of revised spending plans by the Advisory Board for the Research Councils.

Sir David Phillips, chairman of the board, tells Sir Keith this is the consequence of the £16m taken from the proposed additions to the science budget for the next three years, in a letter prefacing the board's new advice.

The revised plans are a result of the Department of Education and Science's retreat before Christmas in the face of a backbench Tory revolt over plans to cut student grants and boost science spending.

The immediate effect is a reduction

of £3m in the £14m extra proposed for the science budget in the coming year. This has been spread across the three categories the ABRC used to allocate the new money - university grants, restructuring of institutes, and capital equipment. The capital allocation suffers the most, with a cut from £6.09m extra to £4.5m.

The Natural Environment Research Council loses almost all its new capital, falling from £800,000 to £250,000, but the other two beneficiaries in this category - the Medical and Science and Engineering Research Councils retain £1.5m and £2.75m respectively for capital spending.

The SERC will get an extra £2m and the MRC £1m for university grants, and the ABRC stresses that the new money still available will permit important university work previously at risk to go ahead. The earlier allocations for restructuring are almost untouched, with £4.8m instead of £5m for the Agricultural and Food Research Council, £1.25m for the NERC and £500,000 for the Economic and Social Research Council.

Among the smaller allocations, the ABRC has cut £50,000 off its proposed increase of £100,000 for science policy studies commissioned by the board, and £125,000 off the £200,000 set aside for strengthening the board secretariat. The increase for the Fellowship of Engineering is halved to £100,000.

The final totals for the five research councils from the science vote for 1985/86 will be (original planning figures in brackets):

AFRC	£50.3m	(£45.7m)
ESRC	£23.6	(£23.0m)
MRC	£122.3m	(£120.2m)
NERC	£87.3m	(£87.5m)
SERC	£298.0m	(£291.8m)

PCL loses £20,000 in Libyan deal

continued from front page

ing to an internal report "more convenient" for PCL to supply it. A first consignment worth £13,000 was delivered in August 1983 and near-final payment received in October. This was followed by a second delivery totalling £147,000.

Under the contract PCL recruited a director and 32 expatriate staff, 15 of whom were on contracts beyond August last year.

Matters began to come to a head last April with some student unrest centring around "alleged dissatisfaction with some of the teachers," according to the report.

When the sixth quarterly payment under the contract became due on June 6 the £147,000 bill remained unpaid and on August 13 the Libyans sent PCL a telex listing 13 points on which it was alleged that the contract had been broken.

Since then there has been no further communication although polytechnic secretary Mr Michael Law met intermediaries in East Berlin before Christmas. Despite the current diplomatic climate the polytechnic remains optimistic about the recovering its costs and has taken legal steps in Malta to protect what it regards as its property there.

Mr Law said: "Our discussions with the Libyans indicate our problems will in due course be solved but discussions are continuing."

In the meantime PCL remains under a contractual obligation to ex-institute staff now in the UK and still on contract. An internal report says: "If there is no further change in this residual establishment and no fresh compensatory income, and steps are taken to generate profitable UK employment for at least some of these people, PCL's future liability could amount to £191,000."

The deficit for PCL International Service, now a separate company, for 1983/84 amounts to £159,000.

At least two of the lecturers are likely to sue PCL for breach of contract over loss of earnings as a result of their return to the UK.

Mr Steve Whaley, secretary of the Regent Street branch of the National Association of Teachers in Further and Higher Education, asked: "Why in a public sector institution taking a high risk on things like this? We are worried the money will come out of reserves or the block grant from the Inner London Education Authority."

UGC sets up humanities group

The University Grants Committee has formed a new working party to look into selectivity in research funding in the humanities. It will be chaired by Professor Peter Bromley, professor of law at Manchester University.

A similar committee already exists in the field of natural sciences and technology, chaired by Professor Brian Gowenlock, professor of chemistry at Heriot-Watt University, and another is to be set up in medical science.

Sir Keith outlines new property cash measures

Education secretary Sir Keith Joseph has extended measures enabling universities to retain a greater share of proceeds of the sale of land and buildings.

He first introduced experimental measures in January 1982, which allowed universities to retain up to 100 per cent of proceeds of sales up to £100,000 for use within two years on building or adaptation work.

Now universities will be allowed to retain up to £200,000 of the proceeds, providing the money is used within three years on building or adaptation work, repairs or maintenance or the acquisition of property.

Under the new measures, if a university sells property worth more than £200,000, it will be able to retain up to half of the proceeds, with the approval of the University Grants Committee. Universities will also be allowed to use up to 100 per cent of the proceeds

of sales to rationalize or replace existing facilities. They will be allowed to retain rents from properties which are in commercial use of benefit to the institution concerned, and rents from properties occupied by displaced tenants.

Sir Keith, replying to a Parliamentary question from Mr John Watts, MP for Slough, said: "The purpose of these arrangements (introduced in January 1982) was to help universities to make the most economic and efficient use of accommodation and to identify property that was not being fully or effectively used and might be surrendered."

"Following consultation with the UGC, I am satisfied that these arrangements have contributed to the capacity of universities to make the most effective use of their sites and properties, and that it would be appropriate to consolidate and extend them."

Information officer Mr Andrew Pantling said: "We have a sum of money available for modernizing many of our facilities, including catering, so we want to make sure we get it absolutely right."

"We already have canteens, a general store, a launderette and so on, but it may be there is a demand for 24-hour facilities and a need to introduce modern catering trends, such as take-away hamburgers."

"We also want to find out what students think of entertainment and social life generally. Are they satisfied with what is already provided? We want to get the balance right."

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Sir Francis is a member of the Science and Engineering Research Council and vice president of the Fellowship of Engineering. He is also a member of the Kendrick committee inquiring into British participation in high energy physics research.

He will be chairman of the Engineering Council for three years, and will preside over its transition from government subsidy to other sources of funding, starting this year.

Mr Law said: "Our discussions with the Libyans indicate our problems will in due course be solved but discussions are continuing."

In the meantime PCL remains under a contractual obligation to ex-institute staff now in the UK and still on contract. An internal report says: "If there is no further change in this residual establishment and no fresh compensatory income, and steps are taken to generate profitable UK employment for at least some of these people, PCL's future liability could amount to £191,000."

The deficit for PCL International Service, now a separate company, for 1983/84 amounts to £159,000.



Dedicated followers of fashion

by Peter Aspden

Sussex University, which celebrates its twenty-fourth birthday this year, is to conduct a poll of students and staff to find out if its campus facilities are already considered out of date.

The university has not changed its catering, trading and commercial outlets on campus since it was founded in 1961, but now it feels that the student of 1985 has different tastes and requirements.

Researchers from National Opinion Polls will ask up to 800 students and staff members what they think of the "quality of social life" on campus.

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Mr Steve Whaley, secretary of the Regent Street branch of the National Association of Teachers in Further and Higher Education, asked: "Why in a public sector institution taking a high risk on things like this? We are worried the money will come out of reserves or the block grant from the Inner London Education Authority."

UGC sets up humanities group

Teacher training survey

by Patricia Santinelli

The National Advisory Body is asking colleges and polytechnics for further comments on their future provision before the Secretary of State for Education announces his decision on the new teacher training allocations. Basically the NAB wants to know whether institutions would increase or decrease their provision in the light of recommendations made last week by the Advisory Committee for the Supply and Education of Teachers.

Originally the NAB secretariat had told institutions last September that they would not be consulted further until Sir Keith Joseph had announced his decision in the light of ACSET's advice.

But the NAB teacher education group feels that earlier consultations are necessary not only because of the tight timetable - decisions on allocations must be made by the spring - but because ACSET's advice is markedly different from that anticipated in the September letter.

In that letter, the NAB pointed out that early indications from ACSET showed that demand for newly trained teachers would be less than expected and that cuts in secondary teacher training might be required.

However, ACSET's advice is for a 49 per cent boost in primary training, an increase in secondary BEd places in shortage subjects and the maintenance of secondary PCEC places at their current level.

As institutions were asked in September to outline their priorities if intakes were expanded or reduced by 10 and 15 per cent, the teacher education group believes it is important that they should comment by January 25 and before the secretariat sends out provisional allocations. This is expected to be on February 22, if Sir Keith has made his decision.

Such information is all the more important as the group is not planning to meet again until February 26, and then again in April after institutions have had to respond to their provisional allocations.

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UGC sets up humanities group

The University Grants Committee has formed a new working party to look into selectivity in research funding in the humanities. It will be chaired by Professor Peter Bromley, professor of law at Manchester University.

A similar committee already exists in the field of natural sciences and technology, chaired by Professor Brian Gowenlock, professor of chemistry at Heriot-Watt University, and another is to be set up in medical science.

UGC sets up humanities group

AS levels

Sir, - It is apparent to us that the demand for AS levels among our potential students is very dependent on the attitude of admissions tutors at colleges of higher education, polytechnics and universities. It would help me considerably to estimate the potential demand for such courses if we could hear from admissions tutors whether students taking AS levels would receive any form of preference over students offering only A levels. In particular would two AS levels be regarded as a more desirable entry qualification than a standard A level of a similar grade?

All replies will be treated in strict confidence.
W. K. WHITAKER,
c/o QRLA Department,
Hull College of Further Education,
Hull, East Yorkshire, HU1 3DG.

Library studies

Sir, - Since Mr Clive Evans' letter (*THES*, December 14) expressing concern about the possible demise of the BA in education and library studies has resulted in a number of queries addressed to the department, may I clarify the situation?

First, it is only the BA in education and library studies which is being considered for closure. This is a great disappointment to me as 12 years ago I conceived the course which enables successful candidates to qualify both as teachers and as librarians, and is the only course of its kind. However, the number of candidates for the degree has diminished over the years and the best candidates prefer a degree in library studies or the combined honours degree in library studies and

another subject. Second, we introduced last year an MA in school librarianship which enables trained teachers and others to take a postgraduate qualification in librarianship. Third, the degree in education and library studies is a very small part of our activity, and the department continues to offer the BA/BSc degrees mentioned above and MA/MSc courses in library/information studies, archive and publishing studies, an MA for teachers of librarianship and a full programme of research degrees - so the department is not closing down as some inquiries have suggested.

Yours faithfully,
P. HAVARD-WILLIAMS,
Head of department of library and information studies,
Loughborough University.



E. P. Thompson: strained

Party members

Sir, - It ill behoves an historian of Professor Kenyon's eminence and reputation to commit elementary factual errors in the public print, as in his review of Harvey J. Kaye's *British Marxist Historians* (*THES*, January 4).

The assertion that E. P. Thompson's "services to the left in general" go no further than his commitment to nuclear disarmament is perhaps arguable, but surely a strained interpretation of the career of one of the founders of the British new left in 1956/57 and the editor of the *New Left Review*'s predecessor.

However, he is undeniably guilty of inexcusable sloppiness in writing that of Kaye's five protagonists (Dobb, Hobsbawm, Hill, Hillon and Thompson) "all of them except Hobsbawm left the party".

Maurice Dobb, the doyen of the group, remained a party member until his death, which occurred in 1976.

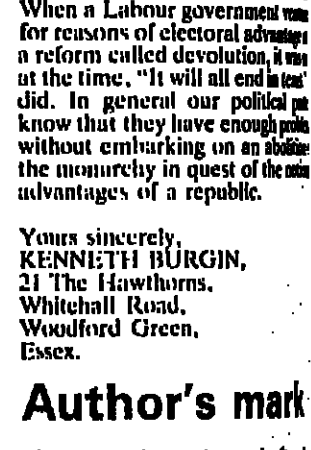
Yours sincerely,
DR W. THOMPSON,
Glasgow College of Technology.

Teacher appraisal

Sir, - I am amazed by the apparent lack of awareness of the current state of knowledge regarding teacher appraisal by the media.

As a supporter of Sir Keith Joseph's initiative on this matter I have listened to radio discussions, watched television and read newspaper reports with the particular interest of one who has been actively engaged in research on teacher performance for over 10 years.

It has been a personal concern of mine that when appraisal of teachers arrived in England and Wales the world merely Anglicized an inappropriate behaviourist based system from the USA (where assessment of teachers is a regular occurrence). The media generally seem to be proposing an even worse fate than this by frequently suggesting modified forms of



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Nobody's prefect

Sir, - In *The THES* of January 11, the word 'rally' became 'rally' and

education became "education", the latter because education is a drawn out process?

I confess to finding these errors amusing, and wonder if I can look forward to receiving my copy of *THIS* incorporating letters to the Editor, Dan's Diary, Personal Bites, Party

Lane, Overseas News, Boats, Notices, Boats and Fifth Column.

Yours faithfully,
ROGER JACOBS,
31 Tingel Road,
Orpington,
Kent.

JOHN STEINBECK OF MICE AND MEN

STRONG AND

MEMORABLE A RICH AND MOVING PRODUCTION MERMAID THEATRE

OUTRAGEOUS

If you're involved with higher education or research studies then you're involved with hi-technology and computers.

THE HI-TECHNOLOGY AND COMPUTERS IN EDUCATION Exhibition

23-28 January, 1985
BARBICAN CENTRE, LONDON EC2

As an educationalist takes an opportunity to get right up to date with everything that is new in high technology and computers in education. The new techniques aren't only for science labs or computer classes, they cover every aspect of school, university or college curriculum from 'O' level to post-graduate research.

This exhibition, the first of its kind, is a definitive showcase for both manufacturers and users alike. You can see the best of the world has to offer, compare specifications and collect literature away from the bustle of day to day activities.

Entrance is free to anyone working in education and over 18 years of age. Just clip the coupon below. (To be completely up-to-date, look in to the series of half-day seminars/workshops organised alongside the exhibition in co-operation with the Micro-electronics Education Programme. For details of these and

DON'S DIARY

SUNDAY

Think about the week ahead. A lot of activity planned, unlike normal boring working weeks. Decide to keep some notes to produce something for this column; then remember that writing is always difficult compared with the easy (and fun) tasks of building and programming microprocessors. Decide to keep notes anyway.

Sunday turns out to be a fairly quiet day. Last evening, some friends came around and deposited their one-year-old son with us so that they could go to a works Christmas dinner. They then stayed the night with us. Baby Alex caused some disruption to our normally child-free house and was somewhat ill as well; all in all, he gave us a rather worrying time. Seems to be on top form this morning, though.

MONDAY

Now that the term has finished, a senior colleague has put on a one-day Integrated Circuit Design course - build your own chips. Decide to go along for this, despite pressure of work. Interesting to be on the receiving end of a lecture again and how different the style is compared with seminars. Play truant from the practical part of the course during the afternoon and get stuck in to a knotty programming problem in an experimental digital telephone system.

Get an unexpected visitation from wife; try to get tickets for tomorrow's graduation ceremony from registrar's office; needless to say, they close at 5.00pm. This problem would not exist if the registrar's office had got around to sending the tickets in the internal mail. Consume take-away pie and chips (potato type), and get back to programming problem.

Make what was intended to be a flying visit to the local amateur-radio club, to hand out countywide call-out lists for the borough RAYNET group (an emergency radio communications organization). Stay rather longer than expected, due to small detour to a public house; arrive home to find that parents have already phoned from their hotel to announce their arrival and to finalize plans for tomorrow. Agree to phone them at 7.30am.

TUESDAY

Graduation ceremony 10.00am to award degrees to postgraduate students in the science and technology faculties. Collect bright red PhD gown from suppliers and search for wife and parents to hand over tickets. Find that the gown is ideal to keep out the bitter cold December wind. Arrive late in hall. Provide running commentary on the ceremony for the pretty virologists on my left, pointing out the computer science graduates. She tells me that there are no other graduates from her department here. Clearly much easier to be an information technologist than a biochemist.

Back to department at 11.00am, for a warming glass of sherry. Received two invitations to this reception one as a graduate (individually addressed, sealed envelope), and one as a member of staff (dropped on desk with other memos). Surprised by one of our engineering support staff telling me that she is resigning in the new year; four hours a day travelling to and from work is the major reason. Take parents for lunch in a steak house and then home for a cup of tea before departure.

WEDNESDAY

Staff meeting at 9.30 to discuss 20 per cent expansion in student intake as a response to the Thatcher report. At there is considerable pressure on space in the building already; this proposal provoked considerable discussion in the ranks. It also highlights

the woefully inadequate computing resources presently available from the local computer centre, especially for undergraduates. This and other topics keep us tied up until 12.30.

After lunch (taken in the usual fashion - sandwiches held in one hand while typing at terminal with the other) am called upon to repair disc drive in minicomputer system. This involves lying flat on my back and removing an access plate (like working on a car, but slightly cleaner) and then re-attaching the elastic band to the spindles. I hope that computer technology gets past the elastic band, string and sealing wax stage soon.

Leave early today and take the train to join my wife at her school (she is a maths teacher). Arrive at a meeting to discuss the teaching of astronomy to schoolchildren. The meeting is at the home of one of my wife's colleagues. After meeting, stay for delicious meal and a quiet drink - finally, we take up their offer and stay overnight.

THURSDAY

After a fortnight's hassling, finally persuade colleague to rectify a defective optical fibre installation. Discover that the glass fibre has fractured internally. Difficult to find, but easy to repair. Optical fibre now in use, in the system used to type up these notes.

Receive notification of successful grant application from the Science and Engineering Research Council, in conjunction with my senior colleague. Find a note from the finance department asking whether we wish to accept the grant; after the difficulties associated with getting it in the first place, I wonder whether anyone actually rejects the offer at this stage. Spend the afternoon dealing with correspondence. A representative of a multinational corporation has phoned to request information about our local computer network project. Spend some time getting copies of papers and internal reports for him; always anxious to promote possible cooperation and collaboration with "industry".

FRIDAY

My senior colleague is trying for a chair; with five professors already in the department and one more to arrive soon, he is unlikely to be promoted internally. His recent interview at a northern university seemed to go well, but he has not yet heard the result - more than two weeks after the event. We spend some time discussing the probability of success at this university; he reminds me that he would like me to move with him if he should take up another post. Consider the pros and cons of moving to another university; I respect my colleague but like the current position also. Any decision about going elsewhere is going to be a tough one to make.

Today is the last working day before Christmas. They have taken the unprecedented step of closing the building for the whole Christmas and New Year period; normally, the place is open on a 24-hour, seven-day week basis. Just as well that I shall be away for the whole holiday; otherwise, it would be really frustrating not being able to get into the building.

The afternoon is a write-off, due to the staff Christmas party. A pleasant affair, with plenty of hotpot and beer. Drag myself away to write Christmas cards for friends and colleagues and get them on to their desks before they surface from the party. Go home (by bicycle, fortunately) and recover for a few hours. Two more celebrations to go to this evening.

SATURDAY

This is the last-but-one shopping day before Christmas. Start (and finish) my Christmas shopping; have the usual problems fighting the crowds in the city centre. The remainder of the day is spent packing for 10 days away from home, in three different places. Pack floppy hat from PhD outfit to amuse our hosts; I know that it would come in useful sometime.

Trevor P. Hopkins

The author is a lecturer in the computer science department at Manchester University.

Social science plugs into media

The head of research at the Independent Broadcasting Authority, Dr Robert Towler, a former sociologist, asked what the social sciences could offer the media at the Association of Learned Societies in the Social Sciences conference on the social sciences and the media.

On the one hand it would offer "techniques"; the research effort at the confluence requires the "jobbing social scientist" and the "journeyman sociologist", to collect and assemble data, he suggested. On the other hand it could offer "perspective" bringing sociological imagination to bear on the wide range of social events.

The average citizen watched television for 38 hours and four minutes per week. Social research had a role to play in the critical examination of these patterns of usage.

Mr Paul Flather, a former reporter on *The Times*, now at Oxford University discussing newspaper "reporting on the social sciences" concentrated on a number of the obstacles such as anti-intellectualism that social science had to overcome in order to

obtain a hearing. Many social scientists had important stories to tell, but failed to tell them in a way attractive enough to the dominant news values and concerns of papers. Much social research was "confirmatory" in the sense that it provided more detail on what was held to be true at a common sense level.

Social scientists had a duty to instruct their own entry to a public debate, where their knowledge might help to clarify issues, he said.

For example, Sussex University had produced a booklet aimed at the local community entitled *What Scientists Do For You*.

Naomi Sargent, senior commissioning editor for Channel 4, said social scientists (academics generally) were their own worst enemies. They erected language barriers between each other, they courted fashionable and obscure new paradigms, they indulged in sectarian war between various parts of their empire - the theoretical purists spat at the market researchers and held them in contempt.

The challenge in broadcasting was to use research not only to bring quality

programmes to audiences but also to make the new series (postscripting, etc.) but to assess viewers' responses in relation to programmes.

The new series *Years Ahead* as the "Over Sixties" show and for older and retired people, the number of points put on programme content, had become casual links presented, and enhance communication to a group.

According to Professor Taylor of York University, social scientists should develop skills in making, they should be ready to go onto programmes and contribute to public and social scientists should get themselves into the making of documentaries, a more film and transcripts than in the actual broadcast; the video the unused material is a valuable secondary data resource.

Unions oppose art college merger

by Karen Gold

London art and craft college lecturers' union members are to meet representatives of the Inner London Education Authority to argue that the proposed merger of their colleges should be postponed.

Members of the National Association of Teachers in Further and Higher Education this week decided not to go into dispute with ILEA over the creation of a collegiate institute linking together up to eight colleges: Camberwell, Chelsea, Central and St Martin's schools of art, and the London colleges of furniture, fashion, printing and distributive trades.

The proposal for the institute, drawn up by a steering group of ILEA members and college representatives, says it should be established in January 1986. It would have over 10,000 students and over 1,000 teachers.

But at a meeting of 150 staff from the colleges at County Hall, a motion calling for at least three months postponement for more consultation was passed. There are also particular protests from the London College of Furniture proposed for inclusion in the institute by the steering group, whose staff want to stay outside.

Mr Kevin Fitzgerald, secretary of Naffie's Inner London region, said there had been inadequate consultation by the steering group particularly

of professional staff in the college extra three months consultation mean amendments to the paper he said.

Mr Neil Fletcher, chairman of steering group and of ILEA's higher education subcommittee which is due to decide on the paper on February 13, said that he agreed to meet Naffie, probably week.

The steering group had set up a sub-institute should be set up as soon possible, he said; it recognised not have the expertise to do academic structure, but thought should be done once a director, earning body and academic board been established.

FCS may be ostracized

The Conservative Party's official student organization may be ostracized from the rest of the student movement unless party leaders crack down on what critics regard as its excesses.

Critics of the right-wing-led Federation of Conservative Students now include Mr Edward Heath, the former prime minister, who is likely to be sacked as the organization's vice president at its April conference. Other complaints have been lodged with party chairman Mr John Selwyn Gummer, principally dealing with allegations that prominent members of the federation set out to disrupt the National Union of Students pre-Christmas conference.

New NUS president Mr Phil Woolas is expected to press for FCS to lose its recognition as an official student organization unless the Conservative Party takes action.

Derecognition would mean that the FCS would no longer be able to attend NUS conferences or to receive information from NUS.

Mr Hal Miller, MP for Bromsgrove, said: "I was not happy with the NUS conference business, and noted with regret that FCS withdrew from NUS but it is a fairly independent institution with views for which we do not take responsibility."

Senior academics voice VAT concern

Three of Britain's most prominent academics have written to the Prime Minister to voice their "deep concern" over reported plans to introduce VAT on books, journals and periodicals.

Lord Flowers, chairman of the Committee of Vice-Chancellors and Principals, Sir Andrew Huxley, president of the Royal Society, and Professor Owen Garfield, president of the British Academy, said in a letter that the decision to bring such a tax would have serious financial implications for universities, which rely on education for institutions, students and research.

The letter stated: "No one, least of

all the Exchequer, stands to gain a tax disincentive on the above gravely endangered field of academic and educational advance."

The Prime Minister, in his reply to the letter, said that the Government was not inspired by the Government.

"The position remains that although the Government favours a shift in the burden of taxation from taxes on earnings to taxes on spending, we have no set views at present on how it might best be done. We shall, of course, give your representations careful consideration," she said.

Britain's geologists dig in their heels

by Jon Turney
Science Correspondent

British geologists are organizing to lobby for an end to the decline in Government funding for geological research. They hope industrial support will help secure more cash for academic work in the subject.

A new Committee on British Support for Geological Sciences will bring together the Geological Society of London, the mainly academic professional society, and the Institution of Geologists, which has stronger industrial membership. It will be chaired by Dr Man Ion, president of the Institution of Geologists.

The Royal Society is also taking a close interest in the group's progress.

At a meeting in London last week, geologists from universities, companies and the research councils agreed to produce a paper charting the decline in state support for research, especially through the Natural Environment Research Council.

They are worried that a fall in support for research, and especially for the British Geological Survey, will reduce the competitiveness of industries using geology for surveying and prospecting. Researchers cite the problems the NERC is having finding

the subscription for a new phase of the unique international ocean drilling project as a case in point.

The group will also argue that there are many new opportunities in geology stemming from use of novel instruments such as satellites, but cash shortages will prevent their exploitation. They hope to secure a meeting with Mr Peter Brooke, undersecretary at the Department of Education and Science, to press for more money.

The Government is also coming under pressure to protect long-term work in another area funded partly through the NERC - research in agriculture and the environment. A

meeting at the Royal Society in London last week heard calls for strategic research into land use in Britain.

At the meeting, held to mark publication of a report on agriculture and the environment produced by the NERC's Institute of Terrestrial Ecology, the institute's director Mr John Jeffers said there was a need for more research on pollution of the land.

The NERC is discussing ways of coordinating work on land use and conservation with the Agriculture and Food and Economic and Social Research Councils, following recommendations from a House of Lords Select Committee last year.

Scots grant figures up

Between 1981 and 1983, the number of Scottish Education Department grants to Scottish students rose by 4 per cent, with a 2 per cent increase in grants to men, and 6 per cent increase to women.

These figures appear in the latest SED *Statistical Bulletin*, which also shows that in 1983, 53 per cent of the grants to a total of 75,900 students went to men.

The bulletin shows the cuts in intake to education colleges, with the number of awards falling by 17 per cent over the two years, to 4260. However, grants for courses in further education colleges rose by 20 per cent over the same period to 8960, with awards for central institution courses rising by 18 per cent to 10,210.

In 1983, 55 per cent of this SED awards were for university courses. There was practically no change in the total number of awards made to Scottish universities over the two years, but expenditure fell by 13 per cent. There were increases in the number of awards of 11 per cent at Dundee University, and 5 per cent at Aberdeen, with largest decreases at Stirling, with 9 per cent, and St Andrews, with 8 per cent.

The total cost of SED grants in 1983 was £106m.

Pressure grows for action over Militant

by David Jobbins

Pressure is growing for decisive Labour Party action against Militant students who have stood in elections against official candidates and been accused of trying to disrupt the activities of the party's own student organization.



Mr Sawyer: wants meeting

The chair of the party's youth committee, Mr Tom Sawyer, and other officers are seeking a meeting with leaders of the Militant-dominated Further Education Labour Students group, two of whom could face expulsion from the party for standing against official candidates.

An internal inquiry into the disruption and premature abandonment of the 1984 National Organization of Labour Students conference in Hull has laid the blame firmly on Militant.

Carried out by the appeals and mediation committee, chaired by Mr Ken Cure, the inquiry report, which has been endorsed by the party's national executive, says: "There is clear evidence that there was considerable disruption of the 1984 conference, that this disruption was organized by those delegates who identified themselves as Militant supporters."

The inquiry found no evidence to substantiate Militant allegations of ballot rigging, and absolved the then student organizer of NOLS, Mr John Dennis, of any blame. It was Mr Dennis who abandoned the conference on advice from secretary Mr Jim Mortimer.

Mr Dennis has subsequently left the organization but has been replaced by Ms Sally Morgan, who is closely involved with plans for the 1985 conference, to be held over the first weekend in March.

The conference is to be tightly controlled by the party, with a greater

presence of party staff than in previous years, to ensure no repetition of last year's events.

As recommended by the Cure inquiry, conference will lose the power to sit in judgment over the credentials of delegates. This task which will be taken on by the credentials committee chaired by Mr Sawyer. Observers will not be allowed, and visitors, whose presence will be subject to veto by the student organizer, will not be allowed to intervene in debates.

The party hopes that these steps will contain the internal struggle between Militant and the democratic left, but much will depend on the treatment meted out to the FELS leadership which was formed to recruit supporters for a line critical of NUS/NOLS policies among disaffected further education students.

Those who some of the NOLS leadership would like to see expelled for opposing official party candidates include FELS organizer Ms Louise James.

CNAA tries non-graduates on masters' courses

by Karen Gold

The Council for National Academic Awards is allowing as an experiment students without first degrees to register for the postgraduate courses it validates.

The courses are generally taught masters degrees, although students can go on from them to research at MPhil and doctorate level. The numbers are small - "In the tens rather than the hundreds" according to a CNAA spokesman.

Pressure on institutions to accept students with non-traditional qualifications is increasing with the growth in masters degrees in new subjects such as information technology and biotechnology, and industrial demand for high-level updating courses.

In addition the CNAA has been forced to change its regulations demanding two years for such courses to allow them to take place in one,

because of the competition from university one-year courses.

The council is considering a formal research project into the performances of non-graduate students at post-degree level, but at present is asking institutions to monitor their experimental intakes. There is no record of failures so far, the spokesman said. Most of the students involved have some kind of qualification, frequently a higher diploma, but this still means they are not eligible for research council grants which stipulate that postgraduate students must have degrees.

The admission of students to first degree courses while holding non-traditional qualifications is one of the main areas of inquiry for the Lindop committee, the Government committee set up to report on standards in public sector degrees mainly validated by CNAA.

Institute faces £250,000 deficit

London's Institute of Psychiatry is facing a deficit of about £250,000 this year, it has been revealed. The shortfall has been caused by a sharp drop in the number of overseas students admitted to the institute over the past couple of years.

Now the dean, Dr Robin Murray, fears staff cuts could be the only solution if the institute's grant is not increased. "We recently came close to appearing in court for non-payment of rates - things really are pretty grim."

"It seems we either delay making all our payments indefinitely, or we may have to cut back on staff, which is something we all want to avoid."

"Our fee income from overseas students has gone down from £460,000 to £250,000 in just over a year."

Dr Murray said the institute's grant from the University Grants Committee had not kept up with the rise in medical salaries. He said the institute has frozen almost all of its vacancies.

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THE FAST REACTOR

The film describes how the fast reactor works, how its fuel is produced and considers fuel reprocessing, safety and core design. It deals with the UK development programme and the Prototype Fast Reactor at Dounreay on the north coast of Scotland.

The film, running time 22 minutes, is available in 16mm colour optical sound, and in various video formats. A video tape of the film is £13 exclusive of VAT. Prices for systems other than VHS and Betamax will be quoted individually.

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Senator Gary Hart, who failed to win the Democratic nomination for the American presidential election, arrives at Edinburgh University to deliver a lecture on defence matters. He is accompanied by Mr David Steel (centre), leader of the Liberal party and Dr John Burnett (right), the principal.

The Romans fail to take Warwick

Students at Warwick University have abandoned plans to stage the controversial play, *The Romans in Britain*, because the authorities fear legal action.

Playwright Howard Brenton wrote the play, which was the subject of an unsuccessful private prosecution for obscenity in 1981, while he was writer in residence at Warwick in the late 1970s.

Despite the failure of the private prosecution, the university told the students it would rather they did not take the risk. A university official said the registrar, Mr Michael Shatlock, "considered the play to be of a nature which could render the university liable to prosecution".

Modifications to the play, which subsequently has not been performed, were discussed with the author but he rejected alterations. "The university's attitude brought immediate criticism from Mr Brenton's agent, Ms Margaret Ramsay. 'It is not much good someone prosecuting and losing the case when all the little provincial places decide to become Mrs Whitehouses.'"

OU engineers joint approach

The Open University and the Engineering Industry Training Board have joined forces to identify the education and training needs of industry.

An agreement was signed this week giving engineering companies access to OU distance learning materials and support services.

Close liaison over tailor-made course materials for individual companies is a likely outcome of the new deal, with the university providing tutorial support on site where this is needed.

Any adaptations of material from the OU's current undergraduate programme will be jointly organized along the lines on which the university has already produced personal training packages for the UK Atomic Energy Authority and DEC Reliance.

For its part, the EITB will put the university in touch with companies with special needs through its field staff. The board will also be seconding a member of its staff to the university to gather experience in the development of distance learning materials, to pinpoint gaps in provision and make academic links.

The agreement will run for two years when it will be reviewed by both parties with a view to extending the period of the agreement.

Medical unit seems doomed

by Jon Turney
Science Correspondent

The Medical Research Council will confirm the closure of its Mineral Metabolism Unit in Leeds at a meeting later this month.

The closure comes before the council as a recommendation from the MRC's physiological systems and disorders board, after a review of the unit's future research plans.

The unit has been funded by the MRC since 1964 and its current budget is around £400,000 a year. It maintains a programme of research into urinary stones and bone disease developed under the former director Professor B. Nordin.

Professor Nordin retired in 1981, and the unit has been under review since then, including visits from an international panel reviewing studies of calcium metabolism for the MRC, and a separate MRC visiting group.

Both groups said the unit could continue, subject to examination of future scientific plans, but the physiology board has now reported there is a case for closure. The current cash shortage within the MRC, with units receiving less than their normal allocations for laboratory supplies and equipment, will encourage council to act on the recommendation.

Staff at the unit have sent deputations to local Leeds MPs, including Sir Keith Joseph, Secretary of State for Education and Science. But Sir Keith said he would not attempt to interfere in an internal council matter.

Library grant

The University of Manchester Institute of Science and Technology has been awarded a £3.4m grant from the University Grants Committee to expand and update its library.

The laboratory management has drawn up business plans, on instructions from the department, to assess ways of reducing the cost to the Government. Warren Spring, in Stevenage, Hertfordshire, now employs 200 scientific and technical staff, and most of the £7m a year budget comes from the DTI and through contract research for other departments. All the plans call for more work paid for by industry.

The laboratory will run for two years when it will be reviewed by both parties with a view to extending the period of the agreement.

Harrington plans new action

by Karen Gold

More legal action between Mr Patrick Harrington, National Front organizer and philosophy student, and the Polytechnic of North London will take place despite the two undertakings to give Mr Harrington unmolested education agreed at the High Court this week.

Mr Harrington is considering suing the polytechnic over the loss of his education due to student pickets which prevented him getting to lectures, and plans to bring at least two more students to court for alleged contempt in proceedings already begun, his solicitor said this week.

Sixteen students this week gave individual undertakings to a High Court judge that they would not assault, molest, interfere or attempt to interfere in any way with Mr Harrington's contractual right to attend and listen to lectures at PNL, nor with his

right to access to parts of the polytechnic normally available to students, in particular the libraries and canteen.

The students had allegedly taken part in pickets attempting to stop Mr Harrington going to his thirty-year lectures during November and December last year.

Mr Justice French emphasized that the undertakings had the same power as a court order. "It is no light or unimportant matter this undertaking that you have given," he told the students. "I trust, as I hope everybody else in this court hopes and trusts that this polytechnic will now be able to get back to its task of providing an education for young people such as yourselves."

Mr Harrington, who had been called to court to ask if he accepted the undertakings, was hissed and called "scum" by students as he left the building.

Later the polytechnic had agreed similar undertakings in order that Harrington's application to be allowed to apply for re-sequestration of his access to the building should not be dropped.

The undertaking commits the polytechnic to guaranteeing Mr Harrington's access to the new site of his weekly lectures, St Benwell Road, the main polytechnic library and canteen facilities, and to the site of his examinations.

Mr Hubert Picarda QC for Mr Harrington said he hoped there would be no further difficulties for the new months of Mr Harrington's term. But Mr John Deishon, the polytechnic's new acting director, would not say if the undertaking would be a verdict on 20 students involved in disciplinary proceedings for pickets against Mr Harrington at the end of this week.

Oxford Thatcher demo: 31 face charges

Thirty-one Oxford students, including 26 from the university and five others from the polytechnic and the college of further education, have been charged with public order offences following a demonstration against Mrs Thatcher's visit to the city last month.

The students are charged with a variety of offences including obstruction of the highway, obstruction of a police officer in the course of his duty, causing a breach of the peace, and intending to provoke a breach of the peace. Nearly all of them are expected to plead not guilty when they appear in court on January 22.

The demonstration, which prevented the Prime Minister and Sir Keith Joseph, Secretary of State for Education, from entering the main porch of All Souls' College where they were attending a private seminar of political scientists on December 7, was one of the most violent the city has seen for many years.

Although the Labour-controlled Oxford City Council has so far declined to press for an independent inquiry into police behaviour during the demonstration, Oxford University students' union has succeeded in persuading the Police Complaints Board to conduct an internal inquiry into police conduct during and after the demonstration.

Mr James Dickinson, president of OUSU, said this week that the students' union was particularly concerned that police at Cowley Road station, Oxford, had fingerprinted all those arrested before they were charged. He said that he understood this to be a breach of police rules and that OUSU was currently taking legal advice on the matter.

Mr Dickinson added that the OUSU had also asked the police to investigate a number of injuries allegedly caused to the students by officers during the demonstration, and to explain why, when the demonstrators asked officers for details of the police complaints procedure, they were given a leaflet written in Punjabi. Sir students had also made individual protests to the Police Complaints Board, he said.

A police spokesman said this week that he could not comment on any of the allegations until after police inquiries had been completed.

Mr Phil Woods, NUS spokesman, said: "In practice there is little warrant extending the scheme as it currently stands. Trainees are being out on both sides, getting neither the quality of training, nor the level of remuneration which was originally agreed by the Youth Task Group. Moreover any attempt to make a scheme compulsory would be the first fatal blow to the original concept of the scheme."

The NUS says what is needed is a radical improvement of the current one-year scheme. It believes that the only legitimate way of increasing the size and comprehensiveness of YTS is to spend more money on improving the quality, thereby making it more attractive to young people.

"What must not happen is that the year of YTS as it is now plus one year of the Young Workers Scheme should become considered an acceptable substitute for two years of high quality training. This would be to make up predominantly of cheap labour at the end of which young people would still have no guarantee of a job," the NUS says.

The union attacks the review as being bland, complacent and irresponsible and for giving the impression that the YTS had been successfully launched. It says it is highly unlikely that the YTS had been successfully launched.

"Academic textbooks are already expensive and students currently spend a considerable percentage of their grants on them. They will be hard hit by this extra amount, coming as it does after the real cut in the student grant next year."

A test run in a number of London colleges has produced a response which surprised even the campaign's organizers. Hundreds more signatures than they expected were collected by Royal Holloway and Bedford College, Froebel Institute, Southlands College and Queen Mary College.

Mr Horwood said: "We have obviously struck a sympathetic chord among students, both political and non-political."

Liberal Students, the National Union of Liberal Students, Mr John Murray, said that science and engineering students - which ministers claimed to be encouraging - would be the worst hit because their textbooks had to be the most up to date.

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HMI welcome for public scrutiny

by Patricia Santinelli

Public exposure, even though dangerous, is the best defence and safeguard of Her Majesty's Inspectorate's independence, according to its senior chief inspector.

Mr Eric Bolton spoke at a conference on the search for quality in education, held by the National Association of Teachers in Further and Higher Education in London last week.

He sought to answer some of the recent criticisms and doubts expressed about the inspectorate's independence and its role in relation to policy. "Of course this independence has to be renegotiated as times change," he said.

"But I believe it is alive and well, although advice is being given in the full glare of the public eye, and in a form which may align us with different interests whether we wish it or not."

This independent advice had to be delivered in a climate of contraction and constraints that made for a degree of polarization of views in society.

"Circumstances such as these always make life difficult and somewhat chaotic for troublesome priests and unmuzzled messengers," Mr Bolton said. "But professional advisers who chose to keep their heads down when times get hard are not likely to last long, or to have the advice they give taken seriously."

Spelling out the risks of public exposure, Mr Bolton said that public scrutiny and weight given to the HMI published reports appeared to suggest that the inspectorate was, or should always be, right.

"Such an expectation could adversely affect the credibility of HMI, particularly if we get things wrong on a number of occasions. Over-exposure may itself lead to important messages often repeated losing their force."

At the same time Mr Bolton made it clear that the independence to which he referred was not that of professional judgement not constitutional independence. HMIs were clearly the servants of the Secretary of State for Education.

"Yet there are many within and outside education who believe that HMI is absolutely independent of Government, and that it can publicly say what it likes and when it likes," he said.

A related misunderstanding was that HMI should always say something different from the Government, and be the advocate for one group or another, that is speak up against the central powers of the state.

"This is false in the sense that HMI should not be seen to be aligned with any particular interest group. We give the professional advice we believe to be justified and required, but we do not work to a blueprint," Mr Bolton said.

For example the fact that the secretary had now published a list of criteria for the approval of teacher training courses did not mean that HMI had a blueprint for the inspection of courses. The first task was always the same, to decide about a course on the basis of standards of learning being achieved.

But Mr Ian Kane, head of arts and humanities education at Manchester Polytechnic, speaking about being on the receiving end of the search for quality in education and inspectorial visits said: "It feels like sitting on a great big iceberg waiting to be rescued by the Titanic."

Mr Kane deplored the way in which what had been originally intended as a survey had been transformed with little warning into a full and public inspection of all teacher training institutions, accompanied by a decision to publish all reports, at least of the public sector.

Speaking about the work of the Council for the Accreditation of Teacher Education, Mr Bill Taylor, its chairman, said three issues had so far been highlighted: local committees, recent and relevant school experience and subject studies.

He made it quite clear that local committees were not subcommittees of CATE, and they would not correspond directly with them but with the institutions concerned. However CATE expected arrangements for such committees to be in hand before the process of course approval started.

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Julia Chan, a former South China Morning Post journalist, is the first postgraduate from Hong Kong to be given the opportunity to study at Sussex University under an extension of the Sir Adam Thomson Scholarship scheme sponsored by British Caledonian Airways.

Concern over social work training

by Olga Wojtas
Scottish Correspondent

There could well be future problems in social work training as a growing demand for qualified staff conflicts with tighter government control of public expenditure.

This warning comes from the Central Council for Education and Training in Social Work in its submission to the Scottish Tertiary Education Advisory Council, which is conducting a review of Scottish higher education.

CCETSW argues that cuts in other services and the growth of unemployment have placed extra demands on the social services.

The aim of the initiative, which is supported by Liverpool University and Liverpool Polytechnic, is to encourage students to think about a career in a small company, and small firms to consider taking on graduates.

The scheme is being sponsored by the Manpower Services Commission, which will pay the graduates an allowance during training (£38 for a single person, £62.70 for a married person) plus travelling and lunch expenses.

Graduates of any discipline under the age of 26 who live in Merseyside, and local companies with fewer than 200 employees will apply for the scheme.

Each graduate will be attached to a small company for 23 weeks, during which he or she will work on a project designed to suit the needs of the company and the interests and qualifications of the graduate. At the end of the attachment there will be no obligation on either side to continue.

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Graduate scheme launched

Graduates who cannot find a job and small companies which do not normally recruit graduates are to be brought together in a new training scheme in Liverpool.

The scheme is being devised by Merseyside Innovation Centre and will give 20 graduates the chance to spend six months working on a project within a company in the area.

The aim of the initiative, which is supported by Liverpool University and Liverpool Polytechnic, is to encourage students to think about a career in a small company, and small firms to consider taking on graduates.

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overseas news

Gandhi honours poll pledge

by Paul Flather

Higher education is being given special priority in India by the Prime Minister, Mr Rajiv Gandhi, as part of a determined bid to increase the pace of modernization in the country — a recurrent theme in his election campaign.

In his first broadcast to the nation a week after his government had been sworn into power, Mr Gandhi promised a new emphasis on vocational and technical education, and revealed plans to create a nationwide open university "to bring higher education within easy reach of all".

The government was actively considering steps to "delink degrees from jobs" — an attempt to end the stampee caused by students desperate to secure a BA regardless of their career or job prospects. This is considered a great drain on the system.

Another sign of the importance now being attached to education is that the new education minister has been given a seat in a small 15-person cabinet for the first time in more than 20 years.

The new minister, Mr K. C. Pant, has served ministries of finance, steel, energy, home affairs and irrigation and power. But in 1978 he left the Congress Party after Mrs

Gandhi's defeat only rejoining in 1983. It is a sign of the high regard his administrative abilities command that he had been given the post, as well as sitting on the important three-man cabinet panel studying the Punjab crisis.

In his first interview since his appointment Mr Pant said that the prime minister was so interested in higher education because he wanted to look ahead. "Mr Gandhi is not interested in taking a short-term view of the country's development needs," he said.

It is widely thought to be the first time since Indian independence in 1947 that education is being seen by the government as an integral part of the nation's drive towards modernization and industrialization, rather than just as an instrument for social change and social cohesion.

The Congress party's election manifesto made 17 pledges on education, the most detailed statement by a party ever. Top of the list comes the twin aims to reach by 1990 universal literacy from the current 40 per cent rate, and

universal elementary education requiring perhaps another 50 million school enrolments.

The party has also promised to extend the successful non-formal education schemes to reduce adult illiteracy, modernize courses and introduce new technology including use of the country's satellite in higher education, delinking degrees from jobs, and improving management structures in institutions — a sore point within the academic community at large.

Mr Pant admitted that he had a very full agenda but promised that his first cabinet battle would be to secure an increased proportion of the new seventh five-year plan (1985-1990) for education. The proportion allocated is 2.6 per cent. Mr Pant wants it nearer the 6 per cent called for by a national education commission in 1968. "But I know from my experience how tight resources are," he said.

A key policy change would be to try and ensure degrees are not required for all jobs, removing the pressure continuously to expand higher educa-



Rajiv Gandhi: new emphasis

tion. This fits one of the government's urgent problems, he said, which was to deal with the growing number of unemployed graduates.

"We have to do something to tune the education system to the needs of development on the one hand and the

need to anticipate and prepare the skilled manpower for the kind of challenges to be faced later," he said.

Mr Gandhi in his broadcast promised to emphasise "education's organic link with the productive forces of society", aligning it with industry, agriculture, communications and the economy. Mr Pant said in future only those who really want and need to go into higher education should do so, with the rest aiming for vocational training.

He also discussed the crisis of morale in many higher education institutions where stories abound of favouritism in appointments, bribery, and staff simply not qualified to fill the posts. He said he had heard such complaints and would aim to look into the matter.

However, his first task — his involvement with the Punjab question permitting — is likely to concern teacher training. Two official reports prepared by a national commission under Professor R. P. Singh, seconded from the National Council of Educational Research and Training, are about to land on his desk. They will propose a radical restructuring of inservice training and new refresher courses to improve the quality and motivation of teachers.

Concern over law results

by Geoffrey Parkins

Malaysian law students are still performing poorly despite the setting up of a special course last year to help students prepare for their bar examinations which provide entry into the judicial and legal service.

While 74 of the 96 students who sat their bar examinations last year passed, not one achieved a first class or second class upper.

The course secretariat of the qualifying board, in Kuala Lumpur, said that the course, which consists of 25 consecutive weeks of study, was for professional reasons "very intensive and demanding" and therefore high grades were difficult to obtain. It has no intention of altering the requirements of the course, which was initially set up for law graduates who failed to achieve second class honours while studying in British universities.

A student who recently passed her bar examinations said that the course was well conducted and the workload very heavy, but the students themselves would be the losers, when they went into practice, if standards were lowered.

Lankan unrest

The troubled state of the northern and eastern provinces of Sri Lanka, where Tamil separatists are still active, has resulted in the postponement of the start of the academic year at the University of Jaffna and the University College at Batticaloa.

Both were to have commenced on January 1 but the Batticaloa University College was due to start on January 16 and the Jaffna University on January 21 instead.

Small research boost in Swedish budget

from Donald Fields

Higher education and research have fared marginally better than average in the pre-election budget submitted last week by the finance minister in Sweden's democratic government, Mr Kjell-Olof Feldt.

For the fiscal year starting July 1, they will receive 7 billion kronor (£677m) — a 6 per cent increase on 1984/85. A further allocation of 6.87 billion (£665) is the amount for social support to students, a 5 per cent rise.

Between them, these two categories will obtain three out of every eight kronor dispersed by the ministry of education. A similar share is claimed by the nine-year comprehensive schools, and the remaining two kronor go on senior secondary schools, adult education and culture.

All levels of education have a 12 per cent share of the budget totalling 320.33 billion kronor (£31.01 billion). They will account for 4.6 per cent of estimated gross domestic product. A recent figure in Britain has been 6 per cent but calculations may vary.

The average 5 per cent growth for all types of expenditure compares with government inflation targets of 4 per cent in 1984 and 3 per cent in 1985. In fact, inflation ran at almost 8 per cent last year, and unofficial pundits are predicting around 6 per cent for this. At the end of the day, higher education will do well with the government strategy of cutting real expenditure by 2 per cent a year until 1990.

The strongest reaction among those directly affected came from Sweden's 130,000 students, angry about the

government's stubborn line on financial aid. Though the amount that full time students can earn during the summer vacation without any deduction from the loans and grants they receive is being slightly increased, the maximum assistance they can claim is being raised by only 2,175 kronor (£211) to 31,626 kronor (£3,062) a year.

With loans forming the overwhelming component, students feel that the money they receive has lagged far behind inflation. Many are now living around the "subsistence" level — which, admittedly, would be envied by their counterparts in countless less wealthy countries.

The government is to appoint a committee to examine the issue, though it seems the suggestion that students' finance be partly determined by the income of spouses and parents will be ignored. By inclination, Scandinavians are averse to means tests and would not favour income differentials between students, all of whom are eager to lead independent lives on the same footing.

Dr Stefan Björkrid, deputy chancellor of the National Swedish Board of Universities and Colleges, said the government's proposals did not deviate markedly from the board's recommendations. In fact, the government was proving less swift than expected in reducing places for would-be teachers, doctors and dentists. However, it was continuing to respond to the labour market by giving economics and technical subjects, especially computer technology, greater priority in the universities.

Migration of experts

by David Jobbins

Universities and colleges throughout Western Europe and North America are being sounded out as part of an initiative to train third world conservationists in the technique of bird protection. A task has been established by the International Council for Bird Preservation to assess the potential role of education and training within the organization's conservation programme.

Its aim is to export scientifically-based conservation techniques evolved in the affluent West and adapt them to the conditions prevailing in developing countries in Central and South America, Africa and Asia.

The task force, set up as a result of a workshop in the UK last month to discuss the options of bringing trainees to the West or of sending experts out to the developing countries, and to examine the question of finance.

Using contacts in international organizations, the task force has decided to draw up a directory of training opportunities by mid-1986 so that third world conservationists will know what is available.

Although much of the expertise is concentrated in governmental and voluntary conservation bodies task force believes that academics in the West can aid the programme, either through existing facilities such as the highly practical MSc in conservation run by University College London, or ad hoc courses.

Macedonian rift poised to reappear

The Bulgarian Politburo has passed a resolution that 1988 should be celebrated as a "great national holiday" to mark the centenary of the Klement of Ohrid University in Sofia.

This is the oldest and most prestigious of Bulgaria's 31 higher educational institutions and, according to the official announcement, "plays a major role in the intellectual growth of the Bulgarian people and raising the worldwide prestige of socialist Bulgaria".

The celebrations, only seven years after the anniversary of 13 centuries of Bulgarian statehood, will undoubtedly have political overtones. Bulgaria has a longstanding dispute with Yugoslavia over Macedonia, claiming that the latter is part of ethnically Bulgarian territory inhabited by people speaking a dialect of Bulgarian.

The conference on Bulgarian culture in June 1981, which was meant to be the academic highlight of the jubilee celebrations, saw a major rift between scholars who accepted the official line of their hosts and those who stood out for the separate identity of the Macedonian language.

The same tensions are sure to appear in the 1988 celebrations, since to boost its claims to Macedonia, the formerly atheist Bulgarian leadership has chosen to adopt several Macedonian saints into its hall of fame of progressive forerunners.

Those include the "apostles of the Slavs", Saints Cyril and Methodius, who invented the Cyrillic alphabet and whose feast day — "the feast of literacy" — is celebrated as a national holiday. The also include another early scholar, St Klement of Ohrid, in whose honour the university is named.

Since the Politburo resolution stressed the link between the university and the intellectual traditions of the Bulgarian people, an academic session on the life and works of St Klement would seem a prescriptive part of the celebrations — almost certainly provoking a rerun of the Macedonian dispute of 1981.

Perhaps almost as controversial is the "recommendation" that the anniversary should be associated with an "overall reorganization" of the work of the university, in order to raise the "content, organization and efficiency of its activities to a new, qualitatively higher level".

Although this is sagged with references to "great academic traditions", it is a broad hint that the university is not fulfilling its role as a leading educational, scientific and ideological centre. The criticism seems strange in view of the fact that Bulgarian higher education received a shake-up from the 1979 reforms, but it appears that the new system is not working as effectively. Judging from the Bulgarian reports to the International Conference on Education in Geneva last October.

Conjuring the past



Peter Scott at the work of quiet don but radical historian Keith Thomas

A quick glance through any issue of *Annales*, the distinguished journal founded by the French historians Marc Bloch and Lucien Febvre, shows that in France in history almost anything goes. Articles on what we British would call economics, literature, sociology, anthropology, none of which could possibly appear in *Past and Present* let alone *The English Historical Review*, are published as a matter of routine in *Annales*.

History plainly is a more commanding and comprehensive discipline on the south side of the Channel. It has an intellectual breadth, excitement, imperialism too that history in Britain has never been able to match. Indeed in a discipline peopled predominantly by Eltonians, neo-Namierists and a few beleaguered Marxists the attempt to gain for history a leading position in social science and the humanities alike has never been properly made.

Yet if there is one person who can match the French historians on their own intellectual high ground it is the Welsh-born Oxford historian Keith Thomas. His excavation of sixteenth and seventeenth century man's (and woman's) religious and magical beliefs and his exploration of man's changing attitudes to the natural world and animals between 1500 and 1800 are not only historical achievements of the highest order in rather stolid British terms: Thomas' work also displays all the intellectual originality and verve which so many regard as the monopoly of the French *Annales* and their American disciples.

Keith Thomas is probably the most celebrated and certainly the most complete of the so-called new historians, that group that coalesced in the 1960s around the journal *Past and Present*. The territory of his history is not limited to the powerful and their institutions, the preoccupation of traditional political and constitutional historians, nor even the material life of all in society powerless and powerful poor and rich alike, the home ground of social and economic historians; it incorporates the values and beliefs of the past and so attempts a reconstruction of its mental geography. Thomas describes his own preoccupation with revealing accuracy as "the ethnography of early modern England".

Yet his history is not part of a deliberate ideological assault on the entrenched orthodoxies of the discipline, however subversive it may be of those orthodoxies in simpler intellectual terms. Unlike some of his contemporaries, and professional allies, like Lawrence Stone and Edward Thompson he has retreated into neither external nor internal exile. Although his work represents a more radical intellectual break with the tradition, at preoccupations of historical scholarship than theirs, Thomas himself has spent a lifetime in Oxford at the institutional heart of history in Britain.

Some have been puzzled by this contrast between the quiet don and the radical historian. Others have been driven into outer darkness by the guardians of the discipline for lesser intellectual novelty, while Thomas if he has remained plain "Mr" and reader at Oxford has done so through choice not because of any lack of offers of chairs up and down Britain. This lack of professional ornament is evidence not of an enforced marginality but of the sustained centrality of Thomas' career.

Two explanations may be possible. First, he is not at war with anyone or anything. He is not a determinist or even a materialist. His approach to history requires a cultural relativism that would sit uneasily with any strong programmatic intentions, whether the overthrow of capitalism or the imposition of St. John's Joseph's patriotic history. His history has no plan and its form is moulded only by the witness of the past.

Second, Thomas is very much a "historian's historian". There can be no doubt that his work is an inspiration to many younger historians. His is the history many of them admire whatever the PhD factory in which they were produced. It seems thoroughly modern; its territory is the whole past not bits of it; it has open frontiers to other disciplines. Yet it is unencumbered by that heavy ideological baggage that can numb the intellect; nor is it constricted by methodological preferences or steamy functionalism that can have the same dispiriting effect.

Keith Thomas was born in 1933. His father, who is still alive, was a tenant farmer in the vale of Glamorgan. The landlord, maybe prophetically in view of his son's career, was the University of Wales. Thomas' mother was a graduate and had been the village school teacher and his grandfathers according to the family memory had attended Glasgow University in her native Scotland. So women played an important part in representing the world of ideas in the Thomas household.

Today as an Oxford don he remains the odd man out in his family. His brother together with his father runs the farm, no longer rented and now grown to more than 1,000 acres. His sister is married to a farmer. Yet he has no sense of being detached. Occasionally this country work, in a footnote in *Man and the Natural World*, a subject that must have occurred naturally to someone of

Thomas' background, he writes: "When the present author was a child in the Vale of Glamorgan, his most frequent companion was a farm labourer's son who knew how to catch hares and rabbits with his bare hands."

After grammar school in Barry and national service in the army Thomas, like so many Welsh scholarship boys in the 1950s, arrived in Oxford although his college was Balliol not Jesus. There he encountered Christopher Hill, Richard Southern and E. H. Carr. A successful undergraduate career was topped by an All Souls Fellowship. Thomas planned a DPhil, on Robert Cecil, but never started work. Perhaps his historical imagination was already expanding too rapidly.

Instead of high Elizabethan and Jacobean platiology Thomas' first articles were about the history of women, although he was later advised to suppress all mention of them in his search for professional advancement. His first lectures were about relationships between the sexes from the Reformation to the first world war. This early preoccupation with what was in the 1950s a highly unorthodox aspect of history looked forward to his later enthusiasm for an eclecticism of historical subjects.

Thomas had become a fellow of St. John's and tutor in history in 1957. He settled comfortably into the routine of undergraduate tutorials, untroubled lectures and postgraduate supervision that is the common experience of Oxford dons. More than a quarter of a century later he is still more than content. For Keith Thomas the life of the Oxford tutor has become like a well-worn and comfortable armchair. He loves Oxford, university and city; the students are very able; the Bodleian is a marvellous library. These benefits outweigh the schizophrenia he sometimes feels because there is almost no overlap between what he is required to teach and his own intellectual preoccupations.

Paradoxically it was while fulfilling a traditional Oxford role, as an editor of the now defunct *Oxford Magazine*, that Thomas encountered perhaps the most decisive influence on his history, the influence that has had the most radical impact on his intellectual shape. He was sent for review a pamphlet by Evans-Pritchard on anthropology and history. Both his choice of subjects and his approach to them have borne the indelible mark of anthropology ever since.

Three aspects of this new and unfamiliar discipline appealed to Thomas. First came the sense of "otherness", the stripping away of presuppositions derived from our modern experience. Thomas is fond of repeating the often quoted phrase "the past is a foreign country", which for him has both an intellectual and a moral significance. The professional conclusion he drew was that an eighteenth or even nineteenth century politician should never be regarded as a twentieth century politician in old-fashioned clothes and that history could never be written in the form of the one-dimensional analysis of the leading article.

The second aspect was the comprehensiveness of anthropology's subject matter. Nothing was excluded — the shape of the family, the form of legends. The contrast with the restrictive boundaries of history, particularly in its Oxford form with its overwhelming emphasis on politics and the constitution and more recently the economy, was obvious — and for Thomas painful. The third aspect was that anthropology seemed much more sophisticated and rigorous in its concepts and theory.

Anthropology may have been the most decisive influence on Thomas' work but there have been others. Although never a Marxist he has been influenced by their preoccupations, and in particular by the personal example of Christopher Hill. In the 1950s he recalls Marxism offered the only intellectual model which suggested that all aspects of past society were of legitimate interest to the historian, and Marxists of course were obliged to believe that the sixteenth and seventeenth centuries were of crucial importance in the development of modern society. Thomas is no longer sure the latter is true but nevertheless has become firmly rooted as a historian of early modern England despite these doubts.

His first and still perhaps most famous book was *Religion and the Decline of Magic* published in 1971. Its origins are interesting for the light they throw on Thomas' methods as a scholar. He was working in the Bodleian on the Levellers, part of a special subject in the Oxford history school. He discovered that Richard Overton, a Leveller leader widely regarded as a proto-rationalist, had consulted the fashionable astrologer William Lilly. This surprising discovery led him into the 800-page-long examination of astrology, magic, witchcraft and other popular beliefs that made him famous overnight.

Subsequently Thomas has refined this serene dip into scholarship into a deliberate method. Now he reads and researches he notes down his interesting references, anecdotes and information which are then consigned to labelled envelopes. When these hoarded envelopes look fat enough Thomas opens them and writes a book or at any rate a lecture. Such was the genesis of his



most recent book, another bestseller, *Man and the Natural World*, published two years ago.

Religion was given a marvellous reception. The book was an unqualified popular success — it has been continuously in print for the last 14 years — and also a considerable scholarly success — the *Economic History Review's* review concluded that "the period will never look quite the same again".

There were of course critics. A few historians unconvinced by new-fangled anthropological preoccupations wondered whether the morass of popular credulity and superstition revealed in Thomas' book was really worthy of such scholarly labour. Some Marxists were worried about the impact its revelations might have on our presumptions about the heroic motivation of seventeenth century radicals. But looking back what seems remarkable is how easily and almost effortlessly such unconventional subject matter and such a novel intellectual approach were absorbed into the mainstream of history.

Today Thomas agrees with those more sympathetic critics who found *Religion* too functionalist. "The book has a heavy emphasis on the practical functions of astrology, magic and witchcraft. Now I would have liked to explore the mental assumptions that made them plausible to their clients," he admits. He is also prepared to accept that his use of categories like "magic" and "religion" may have been naive. If he were writing the book today he would be much more self-conscious, anthropological maybe, about the proper definition of such categories.

Yet these criticisms and qualifications indicate blemishes that are not only minor they also highlight the exceptional originality of the book. *Religion* still appears 14 years after its first publication a great leap forward in the writing of history. The sheer intellectual surprise remains as strong as ever.

Typically since *Religion* Thomas' books have grown out of lectures which in turn of course have their seeds in those hoarded envelopes in his rooms in St John's. His most recent book, *Man and the Natural World*, grew out of his Trevelyan lectures in 1979. Its subject and theme having been suggested no doubt not only by Thomas' own memory of a Glamorgan childhood but also as an act of pious tribute to Trevelyan's enthusiasm for the outdoors. Earlier his Raleigh lectures at the British Academy became *Age and Authority in Early Modern England*. Using other past lectures as an early warning system we can look forward to books and/or articles on laughter, manners, deportment.

Man and the Natural World was if anything an even greater popular success than *Religion*, a natural choice for lead reviews in the posh Sundays and an inevitable entry in those self-regarding lists of books of the year compiled by critics. Its scholarly success, although great, has perhaps been more qualified than that of *Religion*. Some critics have complained that its rather astute theme — a harsher critic has called it banal — has been both disguised and dressed up by the book's grand collection of literary anecdote. A few of the more envious have even hinted that its great success owes much to its conjunction with that growing bundle of concerns that includes vegetarianism and animal liberation (and add for good spite that magic was not exactly an unfashionable subject back in 1971).

Yet a more serious issue does arise from the shape of *Man and the Natural World* and from its earlier work even more so. The most substan-

tial objection to history-as-anthropology is that it tends to present a static picture of a past culture, and one that sometimes emphasizes the equilibrium of society at the expense of the forces of decay or change. By insisting that all aspects of the past merit equal interest it offers the historian little basis on which to discriminate in disentangling the record of the past.

This approach to history also insists on a cultural relativism that, if carried to extremes, can hinder sensible analysis. Some have detected in Thomas' book a tendency to serve up large helpings of past mentality that are difficult to digest intellectually. For some historians the past is not an entirely foreign country; in their view it is in exposing the interplay between continuity and "otherness" that the uniqueness of their discipline depends.

Such issues raise the simplest and most difficult question of all — why history? Most historians perhaps feel that their discipline must be a moral as well as a scientific discipline — but the interpretation of its moral significance under modern conditions is tangled and obscure. Thomas, in his role as college tutor as much as radical historian, fears that history in Britain is sliding into the intellectual irrelevance from which classics have barely and only by great effort escaped.

Its declining appeal he attributes to causes that are both deep-rooted — the origins of history as an offshoot of law in the nineteenth century and the subsequent segregation of social and economic history in separate departments — and also ephemeral — the dominance of particular personalities and periods and his fear that the intellectual life has gone out of some of the new universities.

Thomas deplores the fact that history in Britain is not as it is in France, central to serious public discourse. Yet he has no sympathy with any attempt to use history to reinforce myths patriotic and other or to explain contemporary predicaments, to establish a "charter for our present preoccupations." For him the study of history has three abiding values. Morally, it checks the arrogance of any single generation by showing that in the past people quite as intelligent or as nice ourselves had quite different views of the world. Thomas hopes this may make modern man more tolerant of contemporary cultures that seem primitive or superstitious.

Intellectually, history teaches people to make sensible judgments based on incomplete and sometimes contradictory information, the common experience of the practical world. Culturally, it gives people a sense of the arts that surround them which expands and civilizes their being. Thomas was shocked by a visiting scientist who was unable to date St John's buildings to within 500 years.

Keith Thomas is almost certainly the most creative historian of his generation, maybe because he has been prepared to take greater intellectual risks than many of his contemporaries and stands aside from the formal hierarchy of his profession. He did not mind that his enthusiastic use of anthropological insights might be stigmatized as wobbly or even naive. What mattered to him was the intellectual excitement these new perspectives could bring to his own discipline of history. Looking back, the risks seem slight when measured against his subsequent achievement. It is difficult to accept his gloomy forecast that history is in decline when Keith Thomas stands in a single-handed reformation.

In September
The Times Higher Education
Supplement

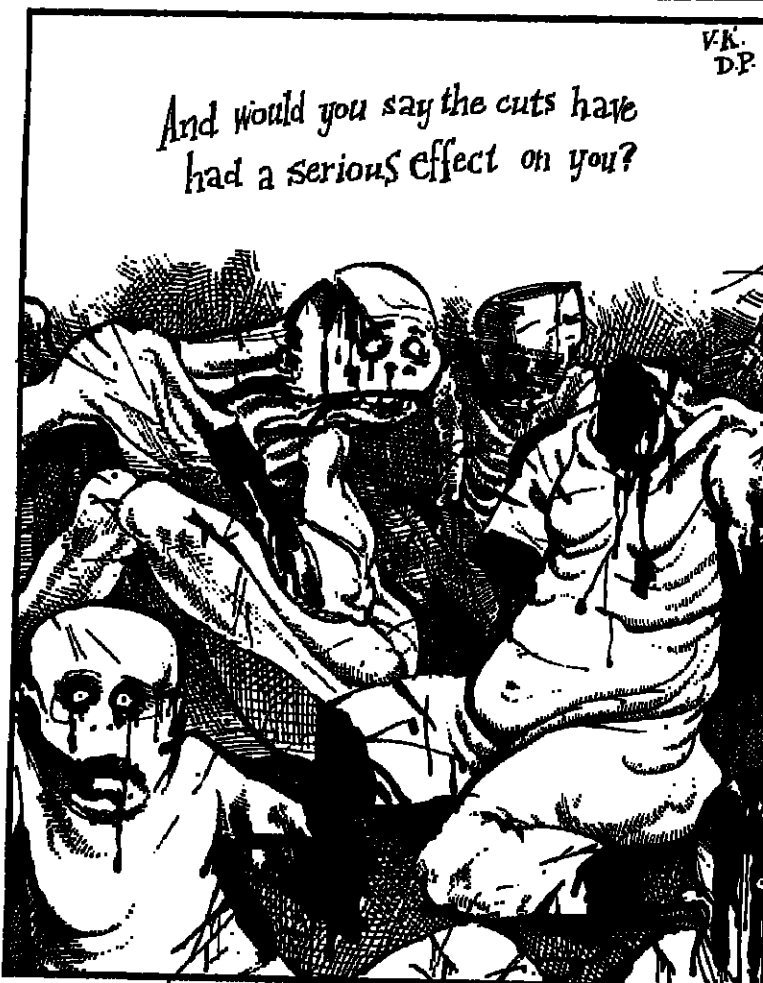
published a 4-page analysis of the joint statement from the University Grants Committee and the National Advisory Body regarding the basis for considering the present and future role of higher education in our society.

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NOP survey



Cuts are hurting, say the victims

The cuts are hurting – and the present Conservative Government is to blame. These seem to be the conclusions of most teachers in higher education.

Support for the Conservatives is at an all-time low, according to the survey. Already only 20 per cent at the time of the last General Election it has now declined to 17 per cent – in universities by themselves to 15 per cent.

Labour's strength is in polytechnics and in arts and social sciences departments. In both categories 34 per cent voted Labour at the general election and that level of support has been maintained. But overall Labour's support has slumped at the 27-28 per cent level.

The "house" party of higher education continues to be the Alliance. Thirty-four per cent voted Liberal or SDP at the General Election and despite Labour's recovery in the country at large in the polls the Alliance's grip on the allegiance of higher education teachers is as strong as ever. The SDP has significantly more support than its Liberal partners. The Alliance

has especially strong support in universities where both the Conservative and the Labour vote is squeezed.

This evidence of widespread disenchantment, with the Conservatives dovetailing neatly with the equally widespread conviction that the cuts have really hurt higher education. Almost three out of five felt that the cuts had had a serious effect on both teaching and research, with the polytechnics and a quarter believing that they had had some effect. Only a small minority believes the cuts have had little or no effect.

The conviction that the cuts have hit teaching is strongest in arts and social sciences and in polytechnics and colleges. Clearly the message about Sir Keith's desire to see a saving to science has got through, and the pinching of student ratios in the non-university sector has really begun to hurt. With research it is the other way round; the universities for obvious reasons are more worried than the polytechnics and colleges, and the scientist match the anxieties of their art and social science colleagues.

Table 1: How academics voted in the General Election

	All	Univ	Poly	CHE	Arts	Science
Conservative	20	19	20	21	15	26
Labour	27	23	34	28	34	18
Alliance	34	37	27	38	30	37
Liberal	12	14	9	13	10	17
SDP	17	18	13	21	18	13
Nationalist	1	1	—	—	1	—

Table 2: ...and how they would vote today

	All	Univ	Poly	CHE	Arts	Science
Conservative	17	16	15	20	13	21
Labour	28	25	32	28	34	18
Alliance	34	37	27	38	30	37
Liberal	11	12	8	12	9	13
SDP	18	18	13	21	18	13
Nationalist	1	1	—	—	1	—

Notes: (1) excludes Don't know and non-voters
(2) Alliance total includes those who did not specify whether Liberal or SDP

Table 3: The effects of the cuts

	All	Univ	Poly	CHE	Arts	Science
On teaching	55	51	58	63	62	48
Some effect	34	38	34	30	28	40
Little or no effect	10	12	8	6	8	12
On research	57	53	50	51	58	57
Some effect	25	24	31	22	24	29
Little or no effect	12	12	11	11	12	11

Anti-Tory and anti-change

Teachers in higher education are strongly anti-Conservative in their political allegiance and believe that the cuts imposed by the present Government have already caused serious damage to our universities, polytechnics and colleges.

Yet on a whole range of issues – tenure for university teachers, the value of external examining, the future of the dual support system for research, the place of continuing education – they have conservative views that tend to endorse the status quo.

For the future they believe that present entry and staffing standards should be maintained even if this means the number of students must be cut. Finally they believe that it is better to close whole institutions rather than adopt a policy of equal misery if the cuts continue.

These are the most prominent findings of a survey of the views of teachers in universities, polytechnics and colleges of higher education carried out last term by NOP Market Research Ltd for *The Times Higher Education Supplement*. A random sample of 743 higher education teachers – 359 in universities, 234 in polytechnics and 150 in colleges – was interviewed between October 22 and November 16.

The survey showed that:
● Less than one in five higher education teachers voted Conservative at the last General Election and even fewer would vote for Mrs Thatcher today. The Liberal-Social Democrat Alliance is the most popular choice among academics.

● More than half believe that cuts have already had a serious effect on both teaching and research. Only one in

ten believes they have had little or no effect.

● Both the University Grants Committee and the National Advisory Body are regarded with great suspicion. Sixty per cent of university teachers do not believe the UGC is performing satisfactorily, while only one in five polytechnic and college teachers believes the NAB is doing a good job.

● A majority opposes the scrapping of the present dual support system for research and more than half of all higher education teachers believe it should be extended to the non-university sector.

● The present system of external examining in universities is overwhelmingly approved as an adequate check on standards but most polytechnic and college teachers still support external validation.

● Continuing tenure for university teachers is strongly supported and a majority believes that teachers in other parts of higher education should enjoy the same protection.

● Two thirds of academics believe that more attention should be devoted to part-time students – but there is little support for two-year pass degrees in universities, polytechnics and colleges devoting more resources to sub-degree courses, or for diverting resources into continuing education.

Finally a finding that may be carefully noted in the Department of Education and Science, the UGC and NAB and other places of power – if the total number of students falls and/or the cuts continue into the 1990s most teachers should prefer the weakest institutions to go to the wall rather than the misery should be shared equally.

Scepticism meets plans for reform

Teachers in higher education are consistently sceptical of the likely benefits of many of the reforms proposed over the past five years to increase the flexibility of the system.

According to this survey they give an unambiguous thumbs down to the UGC's plan for a more selective research policy, the UGC's and the NAB's desire to promote continuing education, the NAB's proposal to give more weight to non-degree courses, Sir Keith's plan to limit tenure, the Leverhulme recommendation of two-year pass degrees, and Uncle Tom Cobble's plan.

The only chink through which a more reforming spirit shines is the substantial degree of support for the idea that more should be done for part-time students. Two thirds of all higher education teachers agree with the statement that "higher education should devote relatively more attention to part-timers" and only 17 per cent disagree. Although scientists are more sceptical than non-scientists, the split is still 59 to 20 per cent.

But the balance of opinion is almost exactly reversed in replies to the question whether resources should be diverted from mainstream teaching and research to continuing education. Only a quarter agree, despite the great emphasis placed in the last year by both the UGC and the NAB on the need to expand and develop continuing education. Even in the polytechnics the split is two-to-one against. But people in arts and social science are much more likely to look kindly on continuing education than scientists.

There is little support for the idea that the present dual support system for university research should be scrapped and replaced by a more selective system – a gleam in the eye of more than one member of the UGC and of the scientific establishment. Only 17 per cent agree; fewer in universities, rather more in polytechnics for obvious reasons.

There is surprisingly strong support for the idea that the dual support system should be extended to the polytechnics and colleges and that their routine budgets should include an allowance for research. Fifty-five per cent agree and only 15 per cent disagree. Even in the universities where support for extending what is at present their exclusive privilege to the non-university sector might be expected to be weak the split is 40 to 26 in favour.

A rather similar pattern emerges on the contentious issue of tenure. Two-thirds of university teachers agree that they should continue to enjoy the special protection of tenure while one in five disagrees. In polytechnics the split is almost equal while teachers in colleges of higher education seem most reluctant to agree that their university colleagues should have any special privileges.

In contrast university teachers seem to be more generously inclined to their less fortunate peers. Fifty per cent agree that teachers in other parts of higher education should also enjoy academic tenure – although they may have in mind the old argument about safety in numbers. Less than a third want to keep tenure exclusive. Paradoxically neither polytechnic nor college teachers are as enthusiastic to receive tenure as university teachers are that they should be given it.

The survey reveals an exceptionally high degree of support for the present

system of external examining among university teachers. More than four out of five agree that it is "an adequate check on academic standards" while only 11 per cent disagree. This may give comfort to the Reynolds committee in its present rather Fabian defence of traditional university practice in this field.

If this strong support by university teachers of external examining comes as little surprise, the high degree of support revealed by this survey for external validation in polytechnics and colleges may surprise those who believe that the polytechnics and colleges are eager to escape from the tutelage of the Council for National Academic Awards. In polytechnics almost three times as many teachers agree as disagree with the statement that "polytechnic and college courses should continue to be subject to external validation". In the colleges the split is an even more decisive 79 to 7 per cent in agreement. This finding may cause the Lindop committee to examine more critically the assumption that everyone in polytechnics is anxious to say goodbye to the CNA.

Two final proposals for two-year courses are decisively rejected. Only 13 per cent support the Leverhulme plan for two-year pass degrees while 75 per cent are against. The idea that polytechnics and colleges should devote more of their resources to two-year sub-degree courses (and less to three-year degrees?), tentatively floated by the NAB more than a year ago, is also rejected although less decisively. It is narrowly supported by university teachers but rejected by the rest, substantially so in polytechnics and less convincingly in colleges.

Report on the UGC and NAB is 'could do better'



Neither the University Grants Committee nor the National Advisory Body is regarded as doing a good job by their respective constituencies. Only one in four university teachers agrees that the UGC is performing satisfactorily, while barely one in five thinks the same of the NAB.

However, active disapproval is clearly much higher of the UGC than the NAB. Sixty per cent of university teachers disagree with the statement that the UGC is performing satisfactorily and there are very few who have no feelings on this issue or do not know.

In the case of the NAB, no doubt because it is a recent creation, opinion is much less settled. The number of polytechnic and college teachers who disagree with the statement that the NAB is performing is double the number who agree but at 40 per cent it is still short of a majority. An almost equal number fall into the "no feelings" and "don't know" categories. Disaffection with the UGC is

lower among scientists and those in senior positions but even among these groups less than a third agree it is doing a good job.

Critics of the UGC were asked whether they agreed or disagreed with two further statements about the committee – that its membership should be more representative of the universities, and that its secretariat should no longer be drawn from the civil service. Almost everyone agrees with the first of these. The score is 80 per cent for and only 6 per cent against. Teachers in arts and social science are particularly strong in their support for a more representative UGC. There is more hesitation about the second idea, that the UGC should no longer be staffed by civil servants.

Critics of the NAB were asked to agree or disagree with three further statements – that it is too dominated by local authorities, that its members should be more representative of the universities, and that its members should be disinterested individuals rather than representing special interests. Surprisingly perhaps none seems to

NOP survey

Survival of the fittest . . .



Four questions were asked, designed to probe the underlying attitudes of teachers in higher education towards future strategy. These cover the system's response to the challenge of demographic decline, the desirability of protecting the unit of resource, the choice between closing some institutions and equal misery for all, and the future of the binary policy.

The answers broadly confirm the picture of the British academic profession built up by earlier surveys. This picture is of a profession very reluctant to lower entry standards even if this means fewer students, that believes it is more important to defend existing staff/student ratios than to maintain or increase the present level of access to higher education, and that if need be the weakest institutions must go to the wall to protect the rest.

The first of these questions asked: "With the decline in the number of 18-year-olds do you think higher education should lower its entry standards or cut the number of students?" More than half refuse to choose, many of them no doubt because they dispute the assumption behind the question that higher education in the 1990s may face a famine of well qualified students. But of those who do answer the clear preference is for cutting back student numbers.

The next question focuses on the talismanic unit of resource. It asked whether if the cuts continue institutions should continue to teach the same number of students and accept the lower staffing standards or cut the number of students to maintain present staff/student ratios. Here there is a much clearer result, although the "don't knows" still amount to a quarter. Almost half favour cutting the number of students while only just over a quarter is prepared to accept lower staffing standards.

On both these questions there are no significant differences between the university and the polytechnic and college responses. However there are interesting differences between subjects. On the first scientists are clear that faced with this predicament entry standards must be maintained even if

this leads to a threatening fall in the number of students. Those in arts and social science are much less sure.

On the second question the gap between the faculties is even wider. Among arts and social sciences the division between those who feel the students must be taught even if this leads to worse staff/student ratios and those who insist that the unit of resource must be defended is fairly narrow. In science and engineering it is almost three to one in favour of the latter.

The third question offered a bleak choice between "equal misery" – any cuts in budgets or in students should be shared equally between institutions and sectors – and "closures" – the more vulnerable institutions should be closed to avoid damage to the rest. Surprisingly only 15 per cent ducked this one.

In universities and polytechnics, where presumably the spectre of closure is more distant, there is a clear preference for the latter course. In both cases 34 per cent support "equal misery" while 51 per cent believe that institutions should be closed. In the colleges, some of which may fear they would appear on the list of institutions to be closed, the division of opinion is exactly equal.

The final question probed attitudes to the binary policy. Overall more agree than disagree with the proposal that the present division of higher education into a university and a local authority sector should continue. This is strongly and perhaps not surprisingly supported in the universities and less decisively so in the colleges of higher education. Even in the polytechnics less than an absolute majority opposes the binary policy and almost a third are in favour.

Table 4: Higher education should devote relatively more attention to part-timers. Do you agree or disagree?

	All	Univ	Poly	CHE	Arts	Science
Agree	68	63	74	64	74	59
Disagree	17	19	13	17	13	20
No feelings	13	14	12	14	9	18

Table 5: Resources should be diverted from mainstream teaching and research into continuing education. Do you agree or disagree?

	All	Univ	Poly	CHE	Arts	Science
Agree	24	22	26	25	28	17
Disagree	58	63	52	53	55	63
No feelings	11	7	17	15	11	11

Table 6: The present dual support system for university research should be scrapped and replaced by a more selective system. Do you agree or disagree?

	All	Univ	Poly	CHE	Arts	Science
Agree	17	18	20	18	15	20
Disagree	33	50	13	19	31	38
No feelings	32	21	40	48	34	27

Table 7: The dual support system should be extended to polytechnics and colleges so ordinary budgets would include a research allowance. Do you agree or disagree?

	All	Univ	Poly	CHE	Arts	Science
Agree	55	40	67	73	57	50
Disagree	15	28	4	4	12	19
No feelings	18	28	11	11	17	20

Table 8: University teachers should continue to enjoy the special protection of academic tenure. Do you agree or disagree?

	All	Univ	Poly	CHE	Arts	Science
Agree	82	66	98	97	49	54
Disagree	32	21	41	46	34	28
No feelings	11	10	15	10	10	14

Table 9: Teachers in other parts of higher education should also have academic tenure. Do you agree or disagree?

	All	Univ	Poly	CHE	Arts	Science
Agree	47	50	50	37	48	46
Disagree	36	29	37	46	35	33
No feelings	14	17	11	11	12	17

Table 10: The present system of external examining in universities is adequate as a check on academic standards. Do you agree or disagree? (asked only of university teachers)

	All	Univ	Poly	CHE	Arts	Science
Agree	85	—	—	—	86	87
Disagree	11	—	—	—	11	8
No feelings	3	—	—	—	1	3

Table 11: Polytechnic and college courses should continue to be subject to external validation. Do you agree or disagree? (asked only of polytechnic and college teachers)

	All	Univ	Poly	CHE	Arts	Science
Agree	85	79	72	70	77	70
Disagree	11	28	7	17	17	17
No feelings	3	8	5	7	7	6

Table 12: Universities should offer two year courses leading to a pass degree. Do you agree or disagree?

	All	Univ	Poly	CHE	Arts	Science
Agree	13	11	11	19	13	11
Disagree	75	78	75	89	74	77
No feelings	8	6	10	7	7	7

Table 13: Polytechnics and colleges should devote more of their resources to two year sub-degree courses. Do you agree or disagree?

	All	Univ	Poly	CHE	Arts	Science
Agree	30	18	38	27	36	36
Disagree	45	29	70	49	49	38
No feelings	20	30	9	12	17	23

better'

have struck an instant chord, although all three criticisms have been widely circulated. The critics of the NAB are more likely to disagree than agree with the statement that the NAB is too dominated by local authorities.

Most polytechnics and college teachers feel they have no knowledge about the NAB's level of staffing. The "no feelings" and "don't know" come to almost three quarters, while the remaining quarter is even divided between those who agree and those who disagree.

There is clearer support for the statement that NAB members should be disinterested individuals rather than representing special interests. But even here less than half of those polled agreed. In the polytechnics 41 per cent agree and 29 per cent disagree. Again there is an interesting faculty split, with scientists much more likely to support this statement. Perhaps the arts and social sciences are worried about the concept of "disinterested individuals".

Table 13A: The University Grants Committee performs satisfactorily. Do you agree or disagree? (asked only of university teachers)

	Univ	Senior	Junior	Arts	Science
Agree	25	28	23	22	31
Disagree	60	57	63	63	57
No feelings	11	11	11	13	8

Table 13B: The membership of the UGC should be more representative of the universities. Do you agree or disagree? (asked only of those university teachers who disagreed with the statement in 13A)

	Univ	Senior	Junior	Arts	Science
Agree	80	73	67	85	78
Disagree	8	12	9	4	9
No feelings	8	8	4	8	9

Table 13C: The UGC's secretariat should not be drawn from the civil service. Do you agree or disagree? (asked only of those university teachers who disagreed with the statement in 13A)

	Univ	Senior	Junior	Arts	Science
Agree	47	42	44	40	44
Disagree	28	22	13	15	19
No feelings	36	32	38	39	31

Table 14A: The National Advisory Body performs satisfactorily. Do you agree or disagree? (asked only of polytechnic and college teachers)

	All	Poly	CHE	Arts	Science
Agree	21	20	22	21	21
Disagree	41	44	38	42	37
No feelings	24	25	22	22	28

Table 14B: The NAB is too dominated by local authorities. Do you agree or disagree? (asked only of polytechnic and college teachers who disagreed with 14A)

	All	Poly	CHE	Arts	Science
Agree	29	29	30	24	40
Disagree	30	28	33	34	21
No feelings	24	28	18	24	24

Table 14C: The NAB is understaffed. Do you agree or disagree? (asked only of polytechnic and college teachers who disagreed with 14A)

	All	Poly	CHE	Arts	Science
Agree	12	12	12	6	18
Disagree	15	13	18	11	19
No feelings	23	21	28	25	24

Table 14D: It would be preferable if NAB members did not represent special interests but were disinterested individuals. Do you agree or disagree? (asked only of polytechnic and college teachers who disagreed with 14A)

	All	Poly	CHE	Arts	Science
Agree	47	41	56	37	57
Disagree	28	29	21	30	21
No feelings	10	13	7	14	7



What the country wants from Dr Bell's successor

The resignation of secretary Terrell H. Bell focused the spotlight on the issue of national leadership in education. The administration, in search of Dr Bell's replacement, was caught in a crossfire between conservative politicians and members of the educational establishment. Politics rather than policies dominated the debate. As an example of how tense the contest became, several would-be appointees took the unprecedented step of going to a conservative lobbying organization - Citizens for America - to argue their qualifications for the post.

To many educators, Dr Bell appeared to be the best possible compromise in the first term of the Reagan administration. Throughout the debate over national education policy, Bell remained a man on a tightrope who retained his post in a conservative administration and at the same time managed to win the admiration of many in the education community. On the one hand, Bell publicly supported certain controversial goals such as budget reductions, prayer in the school, tuition tax credits, and the dismantling of the education department.

Privately, however, the secretary sought to protect the education budget and low-keyed these conservative positions. "He is doing the best he can under the circumstances," was the most frequently voiced conclusion by informed Washington observers. Meanwhile, a restive Congress blocked the administration's attack on education.

The United States department of education came into being five years ago during the Carter administration after a long and difficult struggle. Prior to its establishment, the federal interest in education was expressed through an office of education, located in the health, education and welfare department (HEW). Its leadership role was often compromised, as HEW secretaries frequently found their time consumed by what seemed to be the more pressing issues of health and welfare.

Advocates for the new department were convinced that a separate entity for education would streamline the delivery of programmes and end unnecessary bureaucratic layering. But even more important, it was argued that a cabinet secretary could more effectively provide national leadership by having access to the public forums of debate.

After more than five years, we know something about the impact of the new department. Not surprisingly, the support card is mixed. It is clear that the education secretary has been able to communicate widely the concerns of the nation's colleges and schools. At the same time, it is clear that even with the department, the federal role in education can only be as strong as the legislative and administrative backing it receives. Consider the fact that in spite of the presence of a secretary friendly to education, the percentage of federal assistance to the nation's schools shrunk to its lowest point for two decades - 6.5.

In America we are now entering an extremely difficult period for education. The next federal budget will include significant cuts in domestic spending. Education will have to bear some of that burden. But where the line is drawn in budget cutting will be crucial.

In addition to the funding question, there is an equally important issue: education needs a national leader, one who recognizes that our schools and colleges are a precious resource and one who affirms that indiscriminate budget cuts may seriously weaken this essential sector. Will William Bennett, the new secretary whose appointment was announced last week, send these positive signals to the nation?

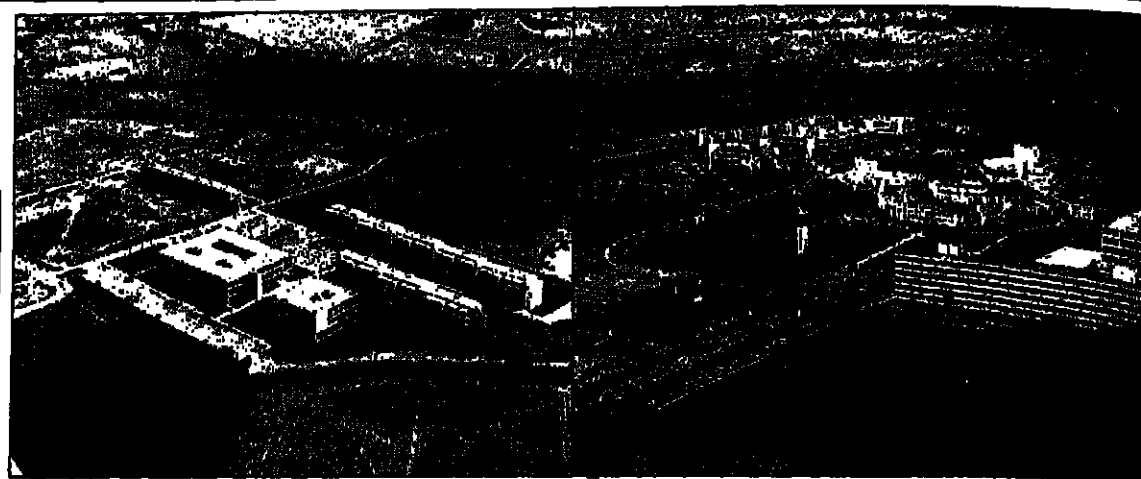
In a recent public interest article entitled *Japanese Education: How They Do It*, Merry I. White wrote: "The single most important contributor to the success of Japanese schools is a consensus that education is important. Across the population, among parents, at all institutional and bureaucratic levels, and highest on the list of national priorities is the stress of excellence in education." In America, White suggests, "we are simply not mobilized around our children." This is why vigorous school advocacy at the top is so vital.

There is also an urgent need to promote the interests of higher education. This year Congress will consider proposals for reauthorization of federal aid to higher education programmes that currently serve millions of students. A heated debate is likely around student aid, which has become an \$8 billion-a-year programme. It is rumoured that the Reagan administration will propose drastic cuts in student loans, repeating the strategy of fiscal year 1981 when a 50 per cent cut in need-based student aid was recommended.

Higher education leaders are also worried about a provision in the administration's tax simplification plan that would curtail charitable donations to colleges and universities. Robert Atwell, newly named president of the American Council on Education - the Washington based umbrella organization representing all higher education institutions - recently said: "Any marked decline in charitable giving would curtail student choice, diminish the overall quality and diversity of postsecondary education, and increase the price of education."

Again, the message the new secretary will send concerning these important issues is absolutely crucial. Is aid to colleges and their students seen as a matter of a highest priority or is it just another item on the balance sheet? Within the inner councils of the administration, the voice of a committed secretary must be heard.

There was fear that President Reagan might select a functionary to fill the education post, someone with safe political credentials who would manage the paperwork and not make waves. Worse still, the office could become a partisan platform in which highly controversial issues such as tuition tax credits and school prayer would be vigorously pursued. If this occurs, the current school reform movement in the United States - which thus far has been bipartisan and good-spirited - could collapse in a crossfire of political and ideological confrontation. Clearly, the attitude of William Bennett, the new secretary of education, is a matter of highest concern to all who wish to see American education move forward rather than retreat.



Then and now: Warwick University in the mid-1960s and (right) the campus as it is today.

For 'radical' read 'entrepreneurial'

Twenty years ago I was among some 500 students and staff who turned up one fine October day and created a new university. Warwick in the year 1965 - when it recruited its first undergraduates - was meant to be going places. It was dubbed within the 'mid-Atlantic' university - a place that would bridge the gap between the traditional elitist British university and the mass produced higher education campus of the United States.

From its very inception it offered a wide range of new courses. It was possible to study not only the history of the Renaissance and the United States but actually go to Venice and America as an integral part of the degree course. Joint degrees - such as history and politics which I studied - were common and the teaching of the sciences, economics and mathematics broke new ground. It also boasted a vast site with infinite room for expansion with a provision for an eventual 20,000 students - well in keeping with the then fashionable views put forward by Lord Robbins.

The attractions of Warwick for an 18-year-old schoolboy from London had nothing to do with this. I was excited by the possibility of going to a place which was smaller than my huge south London comprehensive school - Tulse Hill - away from the big smoke and with the opportunity of going to a brand new place with no history or tradition. I was not disappointed.

Warwick was then confined to one small site - now known as the Gibbet Hill site - with a few modern buildings built round a couple of courtyards. None of the buildings was more than two storeys high and it had only two social centres - a refectory which doubled up as a dance hall and a bar. The result was an intimate atmosphere that can rarely exist except at the beginning of an institution. The sparsity of facilities meant that academics and students mixed freely with friendships spanning across disciplines. It also led to a kind of pioneering spirit. Unlike the passivity which descends on academic staff and students in large places, Warwick was almost entirely populated by activists. Every known activity from the students' union to a chess club had to be created by the students themselves. Thus budding sportsmen had to set up their own clubs; pop enthusiasts their own entertainment and would-be journalists their own magazines and newspapers. It was the circumstances which resulted in me becoming editor of the student newspaper after just a fortnight.

The surprising thing is that 20 years later Warwick is firmly centred on its main campus and has 5,200 students something of the same spirit survives. It becomes, all the more surprising when you consider the events that intervened. Within a year of opening Warwick lurched into the era of the swinging sixties and the flower power generation and had its share of expulsions for possessing cannabis. Shortly after I left came the scandal of the Warwick files and the signs of red revolution on the campus. It has now been graced with the support of Sir Keith Joseph and words of praise from Mr Thatcher. The 'interim' phase of the 1960s has been displaced by that of the 1980s - the same spirit of enthusiasm for new ideas, concepts and new ways of

tapping the world outside are there. It is of course difficult to judge an institution on a fleeting 24-hour visit and universities will try to show a journalist all their best points. Nevertheless even in a pre-packaged tour feelings show through.

The image that came over was very much of academics still grappling with new ideas and of students - now far more competent and serious than my generation - who are still prepared to challenge the status quo.

In the 1960s many of Warwick's developments would have been described as radical or innovative. In the 1980s the catchphrase often used to describe similar developments is entrepreneurial - an adjective which would have been used only pejoratively 20 years ago. Yet pejorative or not the language often masks similar goals. In the 1960s Warwick took an interest in mature students without



The author in his Warwick days

qualifications gaining places and the idea of links or even merging with Lanchester Polytechnic. The very same goals can be seen today in attempts to encourage the unemployed to study for a degree and in allowing Open University students the chance of finishing their history degree at Warwick. Lanchester Polytechnic's link with Warwick will be tentatively cemented with a joint part-time MBA involving staff of both institutions. While Coventry College of Education is now firmly part of the university - even the name has been changed to the Westwood site.

The big change is noticeable in the sciences and business fields. The collapse of Coventry as a manufacturing city seems to have forged a link between the Labour-controlled council and the greenfield site university. The creation of a university science park on a site bordering the campus has seen the start of fledgling high technology and biotechnology businesses which rely on academic spin-offs from the campus. I am told that Warwick has two paper mills on site as the result of such developments. Other signs include the creation of a small business unit and the inevitable Japanese business unit. At the same time the Westwood site has developed post-experience design courses for the executives of Austin Morris and even the porcelain industry.

The buoyancy of science is illustrated by the phenomenal growth of

NEW UNIVERSITIES



the biological sciences department under Professor Howard Dailon. Support from the Government for new blood posts has extended staff, student and research activities and private funds are helping the building of a biotechnology unit. Research money from Japan, America and Britain is allowing a continual expansion.

All this must be music to the ears of Margaret Thatcher. Her first Government is indeed on the curriculum of politics undergraduates. Third-year students can take an option and hear a critical analysis from Mr Jim Bulpin, senior lecturer in the department and one of the university's original appointments. He modestly describes his option as dreary.

On the other side of the coin Warwick is continuing its more radical - that hackneyed sixties' word - tradition by building on its industrial relations research by moving into the field of race relations. The Centre for Research in Ethnic Relations has moved to Warwick and has financial support for the next eight years.

Student life has blossomed since the 1960s. A total of 3,000 students live on the campus and the union has its own building with bars, wine bars, night clubs, travel agencies and a reputation for both social welfare and entrepreneurialism. At the same time a private benefactor has ensured that the university has a huge arts centre, with facilities for drama, film, music and dance soon to equal the Barbican. The place is still, however, rather self-contained and isolated.

The saddest aspect of the place is probably the neglect of the arts and humanities. The position between arts and science appears to have been reversed from the 1960s. There is a distinct greying of the politics and history departments caused by years of retrenchment and few, if any, lecturing posts held by anybody under the age of 30. Meanwhile science and business studies are crammed with people expecting quick promotion - normally found at other universities.

My overall impression is of a university which knows how to adapt to the times we live in. In the 1960s and early 1970s when feminism and revolution filled the air it was the obvious place to employ Germaine Greer and Edward Thompson. In the 1980s it is the place to attract Sir Clive Sinclair. In the 1990s if Thatcherism is superseded, no doubt Warwick will reflect the new academic concerns of the age. Mr Jack Butterworth, the vice chancellor, retires this year. He can be pleased to have created a living organism rather than fields of cement and platitudes.

David Hencke

The author is a social services correspondent on The Guardian. He was at Warwick University from 1965 to 1968.

Leonard Bushkoff presents a pre-inaugural view of America's Central Intelligence Agency

The CIA rides again...

These are boom times for America's Central Intelligence Agency. The practitioners of covert action are riding higher than at any time since the glory days of CIA director Allen Dulles in the 1950s. On the eve of Ronald Reagan's second presidential inauguration, clearly, we "ain't seen nothin' yet".

The CIA is openly supporting guerrilla wars in Afghanistan and Nicaragua; is involved in Salvadoran, Lebanese and Libyan matters; and has begun operating against the narcotics traffic in south-east Asia, terrorism in the Middle East and elsewhere, and Soviet efforts to acquire American technology.

The uncertainty triggered by constant changes over the past few years in the Kremlin gerontocracy - notably the deaths of Brezhnev, Andropov, and most recently Marshal Ustinov - has accelerated a shift from extensive reliance on risk-free but inherently limited spy satellites and electronic eavesdropping to HUMINT, human intelligence gathered from sources in the enemy camp.

Their recruitment is slow, arduous and requires a strong corps of case officers, as does the infiltration of terrorist organizations. Active recruiting has always risked penetration by double agents. Hence the importance of such counter-intelligence masters as the legendary James Jesus Angleton whose losing battle with the director William Colby was one of the many troubles affecting the CIA in the mid-1970s.

Those troubled years are past. Expansion is now the watchword: a 25 per cent annual budget increase since 1981, and a current strength of some 16,000; stronger counter-intelligence; more attention to the third world, more clandestine collection of all sorts, more lively and relevant national intelligence estimates, and certainly more covert action, of which six major and 50 lesser operations are now in progress.

The stress on paramilitary propaganda and political action (witness the recent talk of money spent to elect Duarte in El Salvador and to defeat the autocratic Eric Galtay in Grenada), following the cream of the 1950s, when triumphs in Iran and Guatemala, followed by CIA immense prestige. No matter that Communism had quite limited power and potential in both countries, or that operation TPAJAX further damaged the Shah's already shaky legitimacy, while so upsetting the Iranian political balance that his regime - which even monarchists regarded as an American creation - could drive the opposition underground within a decade.

No matter that Guatemala since operation PBUSINESS in 1954 has been a classic authoritarian state, divided, unstable, and plagued intermittently by leftist guerrillas and rightist death squads. No matter also that paramilitary operations often fail, with disastrous consequences for Western allies in Albania and Poland, Laos and Sumatra, Cuba, and Kurdistan, to name but a few.

Forty years of heated argument regarding policy towards the Soviets - *safinaz* foe? *realpolitik* adversary? fearful giant? - had fostered the knee-jerk assumption that any communist presence requires action from a CIA which, unlike other great intelligence services, has no history apart from anti-communism. The frequent result is to polarize and internationalize many essentially indigenous conflicts, while antagonizing groups who find Western dynamism and technology far more appalling than Moscow's wars.

And while CIA covert policy leaders may impress Washington insiders by replacing radical leaders with nationalistic ones, it cannot change basic sociopolitical conditions sufficiently to enable B to govern successfully nor to eliminate his stigma as an American client.

Yet such action is applauded for its successes in immediate post-war France and Italy, or in Maguway's Philippines in 1953 - in all unique situations and over three decades ago. Power has limitations: even the seemingly victorious quick fix in the

third world rarely goes beyond gaining a little time for a superficial modernization that side-steps basic issues.

Afghanistan and Nicaragua are worth consideration. Support for the *mujahedin* by the CIA has been praised by Americans; for the *contras*, however, widely attacked. Both are contesting the countryside, while regular forces rely on fortified positions and heavy weapons to hold the populated centres.

The initial, delighted American expectations that Afghanistan would become a Soviet Vietnam have proved wrong, though some wishful thinking continues. Soviet troop levels stand no higher than 110,000, with regular rotation home, much noncombat duty and the temporary entry of elite troops and aircraft carry much of the burden. Soviet casualties have been light (though drug addiction and desertion have been problems, as Britain saw last year with the much-heralded arrival here of two young deserters, both since returned to an obscure fate in Russia); guerrilla combat performance has been unimpressive and civilian suffering intense.

The *contras* are divided politically, tribally, the lack of ideological cohesion, compelling leadership and consensus on goals undercuts CIA attempts to impose unity.

There are further problems in the neighbouring states that provide support and a conduit for arms, at American urging, but with their own interests uppermost. Pakistan, for example, has subtly accommodated Soviet denunciations of its complicity, while strengthening its own forces, by skimming the cream of the light arms (largely Soviet-made) that the CIA delivers to Pakistan for conveyance to the *mujahedin*; they get the leftovers.

Both Pakistan and Honduras argue that the risks they are assuming justify stiff demands on Washington for military hardware; their neighbours have become uneasy, and localized arms competition is quite possible. Moreover, many Hondurans and Costa Ricans fear the erosion of their security forces by the benefits of democracy. In sum, the fourth Afghan war hurts the Soviets very little, the Afghans very much; Washington certainly has



Presidents four: Messrs Reagan, Ford, Carter and Nixon gather for a unique photo-call at the White House received precious little for the \$345m (with \$280m more allocated for the coming fiscal year) it has spent. The Nicaraguan war stiffens the Sandinista cadres and military, while burying questions of one-party rule under a call to arms.

Twin failures, as so often in the past: yet secret war is as attractive to Washington as ever. Why? Simply bureaucratic inertia, fear of losing face by quitting, a way of gaining bargaining chips for eventual negotiations? Or is it visceral anti-communism, spiced with machismo, bullying, stupidity, contempt for small nationalism, sheer bloody-mindedness?

Or are these operations - like so many before them - less an exercise in policy than a *substitute* for it, a demonstration to the political elite, to the nation itself, that communism is indeed being combated, freedom defended and American greatness reaffirmed, after years of doubt? So it was with the unseen onslaught against Grenada, a kind of covert action writ large, for which the president was congratulated by one citizen: "You have put the eagle back on the mountaintop. God bless you."

After years of frustration and uncertainty, many Americans would agree enthusiastically. The 1963-80 era had seen a lost war, riots and demonstrations, the Tehran hostage humiliation, eviction from Saigon, the spread of drugs, divorce and sexual permissiveness, the black civil rights movement and those of feminists, homosexuals and others and the downfall of five presidents through assassination, reluctant retirement, resignation and electoral defeat. The *perception* - if not the reality - of American weakness was widespread, and Walter Mondale suffered for that in November.

Hence the demands from conservatives for the "unleashing" of the CIA, paralleling those in the 1950s regarding Chiang Kai-shek. Hence the appeal of President Reagan's movement for national renewal and the reaffirmation of traditional values in a remarkably

religious nation: God and country, work and family, optimism and uprightness, a hearkening back to the Eisenhower era. Hence also the stress on traditional enclaves, after the disavowal of the Soviets as the focus of evil, and their third world allies as state terrorists and trouble-makers.

Here are splendid opportunities for the CIA, whose operations enable Americans to have their ideological cake and eat it too, countering evil while avoiding both war and the massacre of marines, and all the while imparting a sense of dynamism and purpose to a foreign policy woefully lacking in tangible accomplishments. Americans find that immensely reassuring.

Others, however, particularly among the opinion-making elite - academics, intellectuals, journalists, liberal clerics - have grave doubts based less on moralizing or naïveté than on deep-seated traditions and attitudes. Centuries of *raison d'état* and wars have led Europeans to accept intelligence operations as distasteful but normal; Americans react differently.

Their ancestors, having rejected European wickedness to cross the great river and enter the promised land, stood uneasily for decades after 1776 as a frail, emerging nation, a soft target, in fact for French, British and Spanish covert action among dissidents (such as Benedict Arnold and Aaron Burr), and Indians out for simpler revenge. The Americans defended themselves with the Monroe doctrine, support for international law, for non-intervention, in sovereign countries today seek a United Nations shield.

And, just as those countries invoke *realpolitik* when convenient, so the Americans put high-mindedness aside when expansionism called. But hope remained, fostered by the attempts of Wilson and Roosevelt to control international anarchy and a pragmatic concern for the vulnerabilities of a multi-ethnic state.

To counteract this fundamental belief that clandestine operations - not collection or analysis, on both of which the trauma of Pearl Harbour confers acceptability - are a dirty, essentially un-American business that corrupts personal and national behaviour, required a close alliance with opinion makers that the cold war helped Allen Dulles and his lieutenants achieve. Their skill at deploying advertising techniques, opinion polling, and market research to influence public opinion abroad extended to invoking symbols and precepts to enhance the CIA image at home.

"And ye shall know the truth, and the truth shall make you free," graces a wall at agency headquarters in Langley, Virginia, along with gold stars for officers fallen in action. Proponents of the CIA often cite scripture to demonstrate the ancient origins of their craft. Sun Tzu on its practical rules, and George Washington on its critical importance. Subtlety has now given way to confrontation, however, with the blunt-edged and scribe current director, William J. Casey, badly damaging the lofty, bipartisan image his predecessors cultivated. The president has been no wiser, provoking much criticism by linking the embassy suicide-bombing in Beirut to the alleged cutbacks of the CIA by the Democrats. A former tax-lawyer and wheeler-dealer, a high Republican official and now part of the cabinet, Casey has certainly gained greater budgets and power for the agency by his closeness to the president.

But Casey exudes contempt for a Congress that often opposed him and that dared investigate his questionable financial record. A bellicose director, controversial operations in Nicaragua and the threat of civil liberties violations latent in aggressive counter-intelligence, all disturb agency loyalists who fear an anti-CIA backlash should the political winds shift.

Requirements for the 1980s, recent meetings with Canadian and British academic groups, and so on. The emphasis throughout is on intelligence in the context of a ruthless cold war that naturally overshadows questions of accountability and congressional oversight, civil liberties and public opinion and the prudent use of power. That the Soviets are at the gate, that intelligence officers grasp the danger as do few others and that only strong, uninhibited intelligence actions can meet the challenge: these are favourite consortium themes - *plus ça change, plus le monde change* - despite the opposition of middle-of-the-road CIA elements.

The battle for public opinion has led to another non-governmental development: the formation in Washington of pressure groups and intelligence-oriented organizations, in effect a pro-CIA lobby. Its members function as the anti-CIA lobby did in the 1970s (and are a reaction to it), by writing, lecturing, appearing on television and before congressional committees, and offering expertise to sympathetic journalists and politicians fearful of stumbling in an esoteric realm.

Some of these groups are essentially fraternal organizations, retired FBI, CIA, and military intelligence officers, who may speak out on occasion. Others are highly political, particularly the National Intelligence Study Center, the National Strategy Center, the Hale Foundation, and especially the Association of Former Intelligence Officers, with 4,000 members.

That a global power requires a strong intelligence system is clear. Whether so aggressive a system is required, however, is another matter, not least because its behaviour sometimes disturbs the government and the nation on which its own survival depends.

The author was formerly a member of the historical division of the Joint Chiefs of Staff.

Adding to the knowledge of intelligence

Concern about CIA activity is overdrawn, a testimony to the scars that many insiders bear from those years of public scorn, and overlooks unique academic and political developments that may at last gain larger constituencies and broader acceptance, *ie legitimacy*, for their life's work.

The academic development is clear: a remarkable boom in intelligence studies since about 1980, largely among political scientists, but including some historians as well. About 20 courses were taught then; now there are more than 100, and intelligence officers included in courses on international relations and foreign policy.

Academic conferences, symposia, bibliographies and journal articles on intelligence are proliferating and a breakthrough from the utilization of moles, spooks and Smiley may at last have been achieved in studies such as *Knowing One's Enemies: Intelligence Assessment Before the Two World Wars* edited by Ernest May and published by Princeton University Press, in which assumptions, perceptions and appraisal are the themes, not back alley shenanigans.

There is much more: the new Anglo-American scholarly quarterly, *Intelligence and National Security*, the focus of University Publication of America on intelligence monographs, and the Ballantine espionage intelligence series in paperback editions of various classics; the National Historical Intelligence Museum now being established in Washington, of a much smaller museum of espionage in Williamstown, Connecticut; and 6,000 items of the Russell Bowen intelligence collection at Georgetown University in Washington; and the Biannual Richard Welch memorial fellowship in intelligence studies at Harvard, in honour of a CIA officer assassinated in Athens during 1975.

Above all, there is the *Foreign Intelligence Literary Series*, a richly detailed, bi-monthly newsletter (with 800 subscribers), international in



scope, and objectively compiled by the scholarly Thomas F. Troy, a retired CIA analyst. The raw data can be mined from congressional committee reports, the close press coverage since 1974 of the CIA, the many journalistic books since then, and the flocks of both critical and laudatory memoirs during 1974 to 1979 by retired CIA officers, whose political instincts and zest for action and influence typifies this corps d'élite.

Standing in, yet apart from, this academic upsurge, is Washington's Consortium for the Study of Intelligence founded in 1979 by Roy Godson and supported by various foundations in organizing symposia, intelligence course syllabi, an eight-day summer teacher's seminar at Bowdoin College, a five-volume series on *Intelligence*

Pat Morris looks at the need for studies of familiar but elusive inhabitants of the British Isles

Out of sight, but not out of mind

"The magnitude of a scientific revelation is not always paralleled by the degree of magnification employed". Thus commented the distinguished zoologist Hans Lissmann 20 years ago, conscious that the fashion of the day was to assume that real science came from the barrel of an electron microscope and not from the muddy rivers of Africa where his research had been done.

Today the forefront of biological research includes some of the greatest of contemporary achievements, but their glamour and novelty can easily steal the limelight and make essential research on water purification or rat control seem trivial and unimportant. Modern high-powered "technobiology" can also be very expensive and the associated megabudgets even more impressive than the results; but the magnitude of the cost is not necessarily paralleled by the benefits obtained.

There is also value and interest to be had from exploring a relatively low key and low cost area of zoology, namely the study of British mammals. These offer considerable opportunities for new discoveries and are a challenge to the resourceful. Mammals also provide models for testing ecological theory, developed on other groups and assumed to be of wider significance. For example, studies of spatial relationships in birds have led to a concept of animal territoriality based upon overt social behaviour aimed at defending the resources within a discrete area. For many mammals an analogous effect is obtained by separating individuals in time rather than in space, so that "territory" here is a rather different thing. Similarly, ideas about population regulation or optimal foraging which explain the ecology of rapidly reproducing animals like insects or creatures whose lives are largely governed by innate behaviour may need adjustment when applied to large, wide-ranging intelligent mammals. Like other aspects of biology mammals offer many challenging areas of academic inquiry, but there are benefits of a quite different kind, as well as satisfaction and academic interest.

There are over 60 species of mammals living wild in these islands of ours, yet we rarely see more than about six of them. Some 16 species have been introduced to Britain, including some of the most familiar such as the rabbit, grey squirrel and brown rat; but also bizarre newcomers like the red-necked wallaby. Periodically another species makes a bid to be British as a result of lax security at a zoo or escapes from a school petting colony to set up home behind the bicycle sheds. Some of our mammals, both native and alien, can be important pests. Others are a potentially valuable resource, but the majority exist largely unseen and unknown.

For example, 20 per cent of our mammals are bats yet few people could even name more than one - the pipistrelle. Bats include some of the rarest animals in this country. The Monseigneur has probably become extinct in recent years; the Greater Horseshoe bat dwindled to less than a quarter of its population of 30 years ago. There is cause for concern here even though bats are fully protected by law (such that a householder may be prosecuted, and fined up to £1,000 per bat, for interfering with them even in his own house). However this is no use if bats are at risk from some threat outside the law. There is a need for research, especially as we are not even aware about the distribution of some species.

Recent studies at the University of Aberdeen have at least shown one of the likely causes for dwindling bat populations - the chemicals used for treatment of house roof timbers. Some of these will kill bats quickly, even several years after the roof was treated. The research has shown that synthetic pyrethroids are comparatively safe and efforts are now being made to encourage building societies that bat roosts are an essential part of inspecting house roofs from inside attics and that safeguarding bats as well as mortgages is now possible.

Pat Morris is lecturer in zoology at Royal Holloway College.

or research on them, is the fact that the decline of the creatures served as a warning of an environmental hazard, like the old coal miner's canary. If spraying an attic with certain organochlorine compounds can kill visiting bats years later, what about the people who sleep in the room below for eight hours every night? Perhaps this timely research on a rather unpopular group of animals will prove unexpectedly relevant to our own survival as well as that of the bats.

The main problem with studying British mammals is that most are small, secretive or nocturnal; often all three. Many are also scarce and may be getting more so. The practicalities of finding out about such elusive creatures constitute a major challenge for a researcher. Direct observation is feasible for larger species such as deer, and at night the use of modern aids such as infrared viewers and image intensifiers makes possible the investigation of foxes, badgers and other sizable animals.

But for the tiny mice, voles and shrews (which comprise nearly one quarter of our mammals) it is necessary to resort to traps. By marking and recapturing live specimens much has been learned about the animals: their breeding biology, survival rates (few live more than 6 months), and territoriality. Their population density is often very high, with hundreds of mice and voles living unseen in an area of woodland only the size of a football pitch. This is important because the mammal population is the key to the success or failure of resident predators like tawny owls; and is in turn affected by seasonal factors and annual fluctuations in the tree seed crop. Studies of the mammals are thus a part of the understanding of what makes a community of plants and animals function as an integrated ecosystem.

Tracking techniques

However, trapping is disruptive to the normal life of an animal and a less intrusive technique may be preferable. For many species we now use radiotracking. A tiny transmitter is attached to the animal so that it can be traced at any time without further disturbance. By this means it is possible to study the use of three dimensional space to a wood by squirrels or the essentially two dimensional home ranges of riparian species such as the water vole and mink; leading to a better appreciation of how the lives of these animals are organized.

New equipment makes possible the recording of additional data on body temperatures in wild animals and tells us, from a distance, when they are active or asleep. However, most species remain nocturnal with consequent heavy demands on the researcher's time at unsocial hours. Fully automated systems are eagerly awaited.

While such studies form an impor-



This drawing was done by research student Jessica Holm and shows one of the red squirrels she is studying, wearing its radio collar.

tant part of our overall understanding of animals, there is a general expectation that scientific research will lead towards applications and benefits; not very evident in the apparently trivial pursuit of following animals about by radio. However, it emerges from studies of many small mammal species, from moles to mice, that animals are spaced out by a subtle and flexible mechanism so that their home ranges often do not much overlap. Individuals are clearly aware of their neighbours and males are often distributed in a different pattern to females.

Further research shows how this is arranged, often by means of social behaviour in response to substances produced by special scent glands. If populations are spaced out as a result of olfactory cues, we might then seek to identify the substances concerned and produce them artificially. One day it might be possible to keep mice out of the garden shed and moles out of the lawn (or, more importantly, out of arable fields) simply by "playing" artificial scent pellets. This would be humane pest control without death or mess; absolutely specific to the target species and no hazard to any others.

Radiotracking studies of urban populations of foxes and badgers show how two normally shy species can adapt to new circumstances and survive in an unnatural, newly created habitat. This is not just academically interesting information; it might one day be needed urgently as the basis for formulating policies to control the spread of an outbreak of rabies caused by someone bringing home an infected pet from the Continent.

Radiotracking is also helpful in conservation projects such as the current attempt (by the Otter Trust and Nature Conservancy Council) to reintroduce captive bred otters to rivers in East Anglia. Radiotracking monitors the way the animals settle down and explore; progressively extending their knowledge of unfamiliar terrain. One of my students is studying the movements and feeding strategies of red squirrels in deciduous woodland to provide background for a possible attempt to reestablish this species in southern England.

Woodlands and dormice

Another student has made a feasibility study of tracking dormice (a familiar species, but one which only two field research studies have been made this century). We want to see whether coppicing woodland for the conservation of other wildlife is good for dormice or not.

We have also experimented with hedgehogs, simulating the release of pet animals in the way that is often done by people who have raised sickly or orphaned animals and then taken them to the country and let them go. Do they head for "home" or wander about in a disoriented way? Can cage reared hedgehogs cope with the wild? Radiotracking helps to answer these questions which on the one hand seem very minor compared to the serious issues of the day and yet are of

surprising concern to a great many people.

Many of these activities have been funded by voluntary bodies (such as the People's Trust for Endangered Species, World Wildlife Fund and the Universities Federation for Animal Welfare) and so have not diverted money from more important university research. But an important additional outcome has been the educational benefit to students, many of whom have been able to participate in field research and get a lot of fun out of it too. This is the kind of thing that many have come to university hoping to do, and with their enthusiasm suitably fuelled, have gone back to the more arid and demanding aspects of undergraduate work with new incentives.

Many of our students gained their first introduction to computers as a result of actually wanting to process field research data; yet had previously been intimidated by keyboards and jargon. For some additional experience and enthusiasm has been helpful in getting an interesting job. Even for those who gain no such obvious benefits, the study of interesting animals that are always all around them, offers an academic interest and enrichment to their life that specialization in some more technical area does not.

My own particular interest is in hedgehogs. They are no use to anybody, carry no really serious diseases, and do no significant harm; so why bother with them? Despite their universal familiarity and widespread occurrence, we know little about what they do or where they go; so one reason for bothering might be simply because they are there. This is not to say that the nation needs or can afford armies of generously funded hedgehog researchers, as the keepers of the public purse would be quick to point out. Yet, paradoxically, if you were to ask a selection of the public (whose money it is) whether they would like to see some of it spent on hedgehogs, a significant number would probably say yes. The evidence for this comes in the form of three cheques for £1,000 each, given to me by The British Hedgehog Preservation Society in support of hedgehog research. They got the money from small donations from thousands of people, without big campaigns and without the promise of a better tomorrow; just because people want to feel that something is being done about hedgehogs.

I mention this because to many it will seem bizarre. It is true nevertheless and deserves analysis. Why should ordinary people, not normally particularly involved in academic activities express interest, especially with their chequebook? Perhaps to them, research in biotechnology for example or immunosuppressants is just too remote from their everyday experience and interest. That's the kind of research "the Government" should pay for if scientists say it's a Good Thing; but hedgehogs, well they come to the garden every night, the children love them and aren't they where the dog gets its fleas from? Pity about all the dead ones on the road; yes of course we should find out all we can about them!

The popularity of wildlife should not be underestimated. People's interest is stimulated by television programmes (more watched a BBC 1 film about hedgehogs than *Match of the Day* for example) and to them it is probably highly satisfactory that at least someone should be paying attention to squirrels, dormice, hedgehogs or whatever and not merely disappearing into the academic stratosphere.

Herein lies another benefit from involvement with mammals: public support. Large numbers of inquiring letters and telephone calls which rarely involve highly technical matters, clearly show that people want to use their university system as a way of getting information, usually about fairly commonplace things. It does not matter that the questions are trivial things to do with hedgehogs and bread, or milk, or misconceived notions about the evils of having bats in the house; the fact is taxpayers get answers: something they wanted, direct from their university. This too is well worth-while.

None of this detracts from the value of the biology, of course not; but all that glitters is not necessarily gold. Moreover furry and cuddly may be golden in its way, even if it does not seem to glitter at all.

The author is lecturer in zoology at Royal Holloway College.

Tragedy at close quarters

Waste by Harley Granville Barker directed by John Barton for the Royal Shakespeare Company in The Pit, Barbican Centre

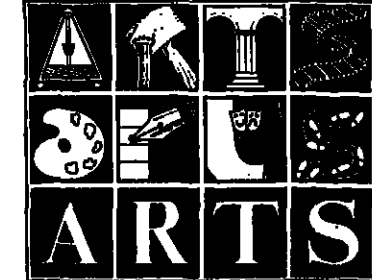
When asked about a possible production of his "political tragedy" *Waste* in the 1930s, Harley Granville Barker advised: "The whole play wants solidly casting - and I fear expensive casting". John Barton has taken good note of this to the extent that on viewing his superb cast-list one wonders why he did not choose to stage the play in the Barbican's main house rather than the Pit.

He justifies his decision on the grounds of the exceptional intellectual rigour of the play's argument which requires the kind of intense rapport between actor and audience that only an intimate playing space affords. The Pit serves well for Barker's all-important shifts in tone in the dialogue through which he frequently implies exposition of character: in the first two scenes much is learned about the protagonist Trebell from the distinction between his coolly willed seduction of Amy O'Connell (later to cause his downfall) and the intimate, genuinely sarcastic banter he exchanges with his sister Frances or his openhearted zeal for debate with his friend, Wedgcroft.

William Archer reviewing the first dramatized reading of *Waste* for *The*



Judi Dench as Amy O'Connell



Richard Allen Cave at the new RSC production of *Waste*

Times in 1908 observed that it "captures some of the powers and privileges of the more spacious form of fiction". But it does this again less by overt means than by a technique of profound and subtle implication. Most of the characters have trained and cultured minds and finely tuned sensibilities; argument, even conflict between them, is a matter of delicate nuance, subtly disguised calculation, deft manoeuvrings for emotional or political objectives. In Barker's first version of *Waste*, the stage-directions repeatedly draw attention to the characters' eyes as the index of their true selves; and Barton admits to alerting his actors to this in rehearsals. The close proximities of *The Pit* allow for an almost static staging of the confrontation of politicians in Act III, where they manipulate the tragedy of Trebell's social predicament to serve their own ambitions; there is a convivial atmosphere of brandy and cigars, and postures are relaxed, but the eyes register alarm, bravado, a predatory watching for opportunities. To survive here one needs daring, insight and a ruthless egoism; paradoxically Trebell's forthright honesty is his undoing. Little ostensibly happens, yet a man's career is ruined and an aspect of the process that is history is rendered with chilling exactitude.

Interestingly *Waste* exists in two versions. When in the 1920s the Lord Chamberlain lifted the ban imposed on the play (officially for its references to the illegal abortion that kills Amy O'Connell and jeopardizes Trebell's future), Barker rewrote it preserving its original plot and shape but entirely redesigning the dialogue to condense and sharpen the political intrigue and, one supposes, to have a second attempt at portraying Trebell and especially his motives for finally committing suicide. He described Trebell to Gilbert Murray in 1909 as a "man of no religious ideas who when he gets one at a great crisis in his life is so superstitiously possessed by it that it drives him monomaniacal and kills him". The conception, Barker thought, was right but not as yet its execution. Barton has conflated both texts keeping largely to the tighter structure of 1926 but taking passages from the 1906 version that more readily illuminate character. Trebell's death scene has been explored through five versions in rehearsal as Daniel Massey has searched for a "centre" of motivation.

That Massey so movingly succeeds here is in part the result of the text he and Barton have discovered through experiment and in part the way that as watching the play through its run of previews has made clear, other actors have begun to make nicely judged emphases that illuminate Trebell's predicament, making his final decision credible. The unstated theme of the play is now sensed and worked for through ensemble acting of consummate skill. We watch a man of unromantic disposition discover two passions in life for a political ideal and for his unborn child. When both are destroyed by the caprice of others the light of vision, the creative fervour, just dies in him. The patterns of chance and choice shaping Trebell's destiny now clearly define the play's structure, as Barker would surely have wished.

Dr Cave is reader in drama at Bedford and Royal Holloway Colleges, London.

Events

Continuing exhibitions:

To January 24, Brighton Polytechnic: Ian Hamilton Finlay: *Liberty, Terror and Virtue*.

To January 25, Library, University of Warwick: *Visionary Fantasy*: colour prints by Eleanor Claythorn.

To January 30, North Staffordshire Polytechnic: "War Requiem" and other paintings by Dorothy Bradford.

To January 30, Triangle Centre, University of Aston: *Home Front*: photographs by John Reardon and Derek Bishon of the black community in the Handsworth area of Birmingham.

To February 1, Senate House, University of Liverpool: Edwardian pictures from the Atkinson Art Gallery.

To February 1, Manchester Polytechnic: *L. Leonardo*: drawings by Ralph Steadman.

To February 5, Vaughan College, University of Leicester: Drawings by Heinz Sauer.

To February 24, Fitzwilliam Museum,

Cambridge: Prints by Rembrandt.

To March 3, British Library, London: *Pierre Corneille 1606-84*.

To March 16, Salisbury Centre, University of East Anglia: *American quilts*.

Concerts

January 20, University of Sheffield: Tudor Music.

January 20, Barnfield Theatre, University of Exeter: *Jeux (trio)* perform Bach, Fauré, Ravel, Debussy.

January 23, Arts Centre, University of Warwick: London Philharmonic Orchestra, conductor Maurice Kaplan, soloist Enrique Perez de Guzman (piano). Programme includes Berlioz's *Carnaval Roman* Overture Opus 9.

January 23, Assembly Hall, University of Strathclyde: John Scott (baritone) and David Hunter (piano): Schumann *Diabelli*.

January 24, Ancaster Hall, University of Nottingham: *Maloué*: Music from Tunisia.

January 24, University of Lancaster: Manchester Chamber conductor Nicholas Braithwaite, soloist Tang Yun (violin); programme includes Beethoven's Violin Concerto in D. Tang Yun is

the leading violinist of the People's Republic of China.

January 25, University of Manchester: Lindsay String Quartet: Haydn, Tippett, Mozart.

January 25, University of Leicester: Caroline Dale (cello) and Mors Lane (piano): Beethoven, Schumann, Martinu, Brahms.

January 26, Turner Sims Hall, University of Southampton: Peter Hurford: Bach organ recital.

Other events:

January 21, University of Surrey: George Macbeth reads his poetry.

January 24 and 25, Arts Centre, University of Warwick: Harrison Birtwistle's *Punch and Judy*, presented by Opera Factory and the Endymion Ensemble.

January 24 and 25, Laban Centre, Goldsmiths College, London: American dancer and choreographer Martha Pridge.

January 31, University of Essex: Julian Glover reads *Beowulf*.

February 5, 6, 8, 9, University of Hull: Heinrich Marschner's opera *Hans Heiling*, sung in English.

Andrew Graham-Dixon visits the Whitworth Gallery

Bringing in the public

The real problem with galleries now is that they're far too coffee-scented. They do not just exist for the middle classes. They should be included, but galleries are here basically for the public, and until we can smash this idea that galleries are exclusive and meant for people of a certain social class then we're on a loser.

Reginald Dodwell, the director of Manchester's Whitworth Gallery, takes a firm line on gallery policy. The Whitworth is a university gallery, and Dodwell is also head of Manchester University's history of art department. While it is clearly crucial to the faculty as a centre for research, the gallery remains firmly committed to the people of Manchester. One of England's more exciting and energetic exhibition centres, the Whitworth obviously owes much of its popularity to its straightforward, populist approach.

The Whitworth's most recent exhibition aptly enough, was about William Morris, who had his own socialist philosophy of art. As always at the Whitworth, the exhibition is a happy balance, an educative without being patronizing, deliberately organized so that people could follow the show without having to buy a catalogue.

The gallery tries to involve the wider public in other ways. Schoolchildren

are encouraged to go, and in the hope that "they'll get the idea that going to a gallery is not like going to a dentist. At the Morris show on the Whitworth's family day, children were set to "hunt the holy grail" - "It's because people don't come into galleries until they're older and posher that art has its rather elitist image."

Professor Dodwell's remarks raise one particularly important question: what should be the precise function of a university gallery? Should it be a "people's" gallery? The Whitworth, ever since its takeover by Manchester University in 1958, has been largely dependent on university funds. Most of its yearly running costs are met by money from the University Grants Committee. It has already suffered a 13 per cent cut in line with the rest of the university, and the visitor is greeted by a gloomy reminder of financial problems. A sign in the entrance tells us that part of the gallery must stay closed every day due to cuts.

At a time when the university has no professor of German, French or Latin,

A hymn to love

Chagall Royal Academy of Arts until March 31

Marc Chagall is a painter you either love or hate; he is in fact like none other.

Born in 1887 in Tzarist Russia to a Jewish Orthodox family, he now lives and works - at the ripe age of 97 - in France, and the current retrospective at the Royal Academy is a timely homage. Organized with the support of the First National Bank of Chicago, the exhibition consists of some 190 works, including paintings, book illustrations, prints, theatre design and stained glass, which span his entire career.

As Chagall is so poorly represented in this country, this is a wonderful opportunity to see his work in chronological perspective, but even more importantly, to dispel perhaps the myth that he is little more than a sentimental popularizer of emotions, a kind of male "Jewish mama" who painted Fiddler on the Roof (the correct title is *The Fiddler*, 1912-13). That Chagall's fiddlers played on roofs is in fact less fantastic than it may seem, for this was a fact of life in "old Mother Russia", as the painter himself reminisces in his autobiography *My Life*. "It turned out that because of the fine weather we were having, grandfather had climbed on the roof, sat down on the chimney pots and was regaling himself with carrots. Not a bad picture". Not indeed.

Much more wondrous to behold are his rabbis, lovers, cows, leaping about as high as the church steeple, flying in the sky, or standing on their head, defying all laws of gravity; imagine the indignity of Lenin addressing the masses balanced on one hand, but this is exactly what happens in Chagall's *The Revolution* (1937) and this would indeed need some explaining.

But to try to use logical inquiry as an analytical method in Chagall's work would be a mistake. "Supernatural" was the word used by the astonished Guillaume Apollinaire, when first faced with Chagall's paintings, some time in 1912, and much has been made of this; but however "supernatural", Chagall is no "surrealist", nor did he ever adhere to the movement. It would be a mistake even to consider him their predecessor.

The answer is simpler: Chagall is a poet and little wonder that his best friends were poets, among them Guillaume Apollinaire and Blaise Cendrars, to whom he dedicated the enigmatic *Homage to Apollinaire* (1911-12). Iconographical interpretation aside, this painting is an important eye-opener, in terms of Chagall's highly methodical and intelligent technique: he borrowed over so selectively what he needed from other painters, adapting brilliantly to his needs.

However vehemently he denied any influence from the Cubists ("I let them choke themselves with their square pears on their triangular tables", he



"Bella with a White Collar", 1917.

once said) this painting reveals just how much he owed them.

Especially important was Robert Delaunay, one of the inventors of "Orphic Cubism", whereby the transparent monochrome space and volume-building planes used by the Cubists were replaced by transparent superimposed planes of pure colour, which, Delaunay argued, were also space-creating. This was just what Chagall needed: colour and his are passionate, explosive and barbaric colours - yet discreetly kept in check by a rigorous discipline.

The exhibition contains a large number of some of Chagall's most famous works, such as *White Crucifixion* (1938) and *Falling Angels*, which was painted over a long span, between 1922-1947, during which time he suffered the painful loss of his first wife and constant muse, Bella, who died in 1944 when they were living in New York as war refugees. It also includes works seldom or never seen in public here before, from his early period in St Petersburg. There are wonderful etchings for the Bible and La Fontaine's *Fables* and fine examples of stained glass as well. Especially dramatic is the backdrop Chagall made in 1942 in Mexico for the ballet *Aleko*, choreographed by Leonid Massine.

To my mind, though, the most touching in Chagall's entire oeuvre are his lovers. Again and again, he returned to this favourite leitmotif, as recently as 1984 in *The Dream*, and somehow it is not "too sentimental" to say that Chagall's art is a hymn to love and through it, to life, fiddlers on the roof, flying rabbis and cows and all. Chagall is one of these rare artists who see beauty and human dignity even where there is appalling poverty, pain, tears, suffering and sacrifice. In that sense his whole art is a triumphant and joyous tribute to life - emotional yes, sentimental, no.

Sanda Miller

North West"), it is essentially an international gallery. Many national newspapers, which seem culturally shortighted outside London, fall to appreciate this: "What happens for example with the *Daily Telegraph* is to find that people come and review our exhibitions, but their reviews are only published in the northern editions."

Another problem is delayed coverage: *The Guardian* only printed their review of the Morris show four weeks after it opened. This is additionally unfortunate, because it can discourage the industrial sponsorship which is so essential to the mounting of many exhibitions.

University galleries remain financially insecure because of their ambivalent nature, as both public exhibition spaces and centres for research. But by putting on so many and such varied shows (all free), and by aiming so clearly at all sectors of the public, the Whitworth has become far more than an instrument for academic research. It is a fine example of the way in which university and town can complement each other. Professor Dodwell, himself a blend of academic and man of the people, sums up the gallery's approach: "We are here to be available to the public. I believe that very passionately. If the public don't come in, we have failed."

BOOKS

Mathematics, truth and logic

by A. J. Ayer

Russell
by C. W. Kilmister
Harvester, £18.95
ISBN 0710815519

It is not a condemnation of this book to say that it is lopsided. Professor Kilmister is a professor of mathematics and his interest in Bertrand Russell's philosophy is focused on the background and consequences of Russell's and A. N. Whitehead's *Principia Mathematica*. He makes no attempt to distinguish the two authors' contributions to this work, but writes as if it were wholly Russell's. He is probably right to the extent that it was Russell's long-standing desire to find a good reason for believing in the truth of mathematics that led him first to lay the groundwork of the reduction of mathematics to logic in his *The Principles of Mathematics*, which appeared in 1903, and then to enlist his former tutor's help in carrying the enterprise to fruition in *Principia Mathematica*, of which the three volumes of the first edition appeared respectively in 1910, 1912 and 1913.

Nevertheless, it is thought to have been Whitehead who did most of the work on the logic of relations, to which Professor Kilmister represents Russell as attaching the greatest philosophical importance. In this connection Professor Kilmister makes much of a difficult paper "The logic of relations" which Russell wrote in French in 1900 and published in the seventh volume of Giuseppe Peano's *Rivista di Matematica*. This paper, which was Russell's first published contribution to symbolic logic, made use of Peano's notation. An English translation of it appeared in a collection of Russell's papers entitled *Logic and Knowledge* and published in 1956.

Professor Kilmister pays surprisingly little attention to *The Principles of Mathematics*. On the other hand, unlike most of Russell's expositors, he singles out *An Inquiry into Meaning and Truth*, substantially Russell's last work, which he published as early as 1940. Addressing himself to an audience of laymen, Professor Kilmister prefaces his account of this essay with a swift history of the development of geometry from Pythagoras onwards, emphasizing the discovery of non-Euclidean geometries by N. I. Lobachevsky and J. Bolyai in the 1820s and the elaboration in the 1850s and 1860s, chiefly by A. Cayley and G. F. B. Riemann, of projective geometry to a point where Cayley could claim that it combined all geometry whether Euclidean or not.

Under the influence of the neo-Hegelian J. E. McTaggart at Cambridge, Russell had displayed succumbed to the lure of German idealism and in 1917 he was still sufficiently in agreement with Kant to maintain that "The actual space we know . . . is admittedly Euclidean, and is proved, without any reference to Geometry, to be a priori, hence, Euclid has apodictic certainty, and non-Euclidean stands condemned". By 1914 when he delivered the Herbert Spencer lecture at Oxford "On scientific method in philosophy", reprinted in the collection *Philosophy and Language*, he had been converted to the view, now predominantly accepted, that "Our knowledge of pure geometry is a priori but is wholly logical. Our knowledge of physical geometry is synthetic, but it is not a priori". So Kant's problem of accounting for our supposed a priori knowledge of the character of physical space does not arise. Professor Kilmister does not enter into the details of Russell's conversion, but no doubt Albert Einstein's successful application of Riemannian geometry to physics played its part.

The third section of the first chapter of Professor Kilmister's book is devoted to Russell's *A Critical Exposition of the Philosophy of Language*, first published in 1900. The importance of this work in the development of Russell's logic is seen by Professor Kilmister as consisting in Russell's rejection of Leibniz's fundamental assumption that all propositions are of the subject-predicate form, together with his own conception of a proposition as consist-



Bertrand Russell at the age of 92.

ing not of signs for the components of the states of affairs which would render it true but of these components themselves; for then it follows that there are objectively real relations.

Otherwise, Professor Kilmister supplies us with a hotch-potch of comments on this book. He fleetingly refers to the views of W. V. O. Quine, John Stuart Mill, John Neville Keynes, W. E. Johnson and F. H. Bradley on the status of propositions, and seems to acquiesce in Quine's objections to the definition of a proposition as a class of equivalent sentences. He does not, however, propose any alternative to this definition, or consider the bearing of its rejection on Russell's philosophy. We are treated instead to some inconclusive remarks on Zeno's paradoxes and on McTaggart's arguments against the reality of time. Professor Kilmister suggests that the persistence of things in time is an objection to Leibniz's identification of them with their properties. I do not see why this should be so. I see no good reason why a property should not itself contain a temporal specification. I also think that Professor Kilmister is mistaken in supposing that the failure to distinguish substance from its properties entails that all true propositions of the subject-predicate form are necessarily true. Only a fraction of a subject's properties is needed to determine the kind to which it belongs. Whatever

other general properties it may have and the spatio-temporal peculiarities which distinguish it from other specimens of the same kind should alike be treated as contingent.

Apart from the book on Leibniz, the only non-mathematical work of Russell's that Professor Kilmister discusses in any detail is the article "On denoting" which was first published in *Mind* in 1905. It too is reprinted in the collection *Logic and Knowledge*. This article is important for its development of Russell's famous theory of descriptions, which enabled him to abandon the Platonism of his *The Principles of Mathematics*. As is well known his technique was to turn apparently denoting phrases into predicates by employing the existential and universal variables. For instance, the sentence "The present King of France is bald" was translated into the conjunction of sentences: there is an x such that x now reigns over France; x is identical with x ; and x is bald. Since no one now reigns over France, the proposition which these sentences combine to express is simply false. By making the existential and uniqueness claims, concealed in the definite descriptive phrase, explicit, Russell avoided even the semblance of commitment to a non-existent entity.

To what did the use of variables commit him? The answer given by

Quine, who has been foremost in reviving the question of ontological commitment, is that he was committed to the existence of whatever entities within the range of the variables might confer truth on the sentence in which the signs for them occurred. So, in our example, as it stood, he would have been committed to the existence of human beings. This was the point of Quine's epigram that "To be is to be the value of a variable". More recently, however, Quine has sketched a method by which he thinks that variables may be explained away. Professor Kilmister propounds the same conclusion, developing a suggestion made by M. Schönfinkel in 1924 and subsequently carried forward by H. B. Curry and by Alonzo Church. The method, of which Professor Kilmister gives a short and simplified account, is to have the work of quantifiers done by combinatorial operators. So far as I understand it, I see no reason why it should not be successful.

Does this mean that we are freed from any ontological commitment? I do not think so. Professor Kilmister himself claims no more than that "there is no need for an additional domain of variables, besides the domain of the natural numbers, in the real furniture of the world". This appears, however, to display a misunderstanding, unless the reference to the domain of variables is construed as

a reference to their values, which might in fact be the natural numbers, at least in the first instance; we should not be precluded from holding, with Russell and Quine, that the natural numbers can be eliminated in favour of classes. In my view, it is most plausible to think of the operators as combining predicates, in which case we should be ontologically committed to the state of affairs in which these predicates were concretized. In the case of Nelson Goodman's language of appearance there would be colour-spot-moments. This leaves open the question how far such a language enables us to express all that we might want to assert.

An important part of Russell's essay "On denoting" deals with the distinction which Gottlob Frege tried to draw between the sense and reference of a linguistic expression. Russell uses an elaborate argument to show that Frege's distinction is not tenable. The phrase which he takes as an example is "the first line of Grey's *Elegy*". There is no question but that this refers to a line of poetry "The curfew tolls the knell of parting day", but what is its sense? The obvious answer is that it is whatever is meant by the phrase. "The first line of Grey's *Elegy*" but this does not satisfy Professor Kilmister any more than it did Russell. Professor Kilmister suggests that the sense of the phrase should be equated with the class of means for ascertaining its reference, presumably as if I were to say that it was the sixteenth line from the bottom of page 442 of the *New Oxford Book of English Verse*. I am not attracted by this suggestion, perhaps only because it seems bizarre.

Professor Kilmister's exposition of the course of *Principia Mathematica*, both in its first and second editions, is lucid and reasonably thorough. He underlines the historical importance of Russell's discovery of the paradox inherent in the conception of the class of classes which are not members of themselves, but leaves it unclear, as he does, whether he takes Russell's theory of types to be an acceptable solution of this and other paradoxes as that of Epimenides the Cretan, who said that all Cretans were liars. The point, which Professor Kilmister makes, that self-reference need not lead to paradox would seem to tell against Russell's theory, but the conclusion which Professor Kilmister seems to draw is that the theory is too subtle to succumb to such a simple objection.

As I said at the start, Professor Kilmister does not venture into other areas of Russell's philosophy, but he allows himself to mention some of the outstanding events of Russell's early life.

Sir Alfred Ayer is emeritus Wykeham professor of logic in the University of Oxford.

MacDonald Ross provides the first ever quick, accurate, lively and intelligible panoramic view of Leibniz's life work, properly emphasizing metaphysical, logical and theological speculation. He does have his own interpretations to offer, but these are not exceptional. More important is the fitting of these into Leibniz as a whole man.

In that respect there is only one obvious modification needed: Leibniz wrote more on political topics than any other; and these got short shrift. He could usefully be compared to someone born in Germany in 1943, whose childhood is surrounded by ruins, and who studies Leibniz's had a vision of a Christian Europe in which Christians would never again kill each other. He thought this had to be achieved not only at the critical level, but at the level of creating a new network of institutions that would experience no need for anything worse than friendly rivalry. The concept of "harmony" plays a central role in his metaphysics, and it is to be mirrored in politics.

Dr Brown's book is a much less ambitious one; for it is more than twice as long, and is intended to serve as a student's guide to reading Leibniz. It is accessible but not outstanding. Brown begins by depicting the

BOOKS

The other island

Bernard Shaw: a critical view
by Nicholas Grene
Macmillan, £22.50
ISBN 0333 334248

This is a study of Shaw the playwright, tracing his development from the early social dramas, through the philosophical comedies of the middle period, to the epic or emblematic reaches of the late plays. It is essentially a work of criticism rather than scholarship; there is little new material and the author is sparing in his use of background sources. His analysis of the plays is well-informed and perceptive, and he is always alert to the exigencies of theatrical performance. It is not a reverential study of Shaw by any means, but it does help to establish him as a major modern author. Academic critics have been oddly reluctant to accept this; the common reader and the common playgoer have never doubted it.

The book is part of the publisher's series entitled "Studies in Anglo-Irish Literature". The author begins by placing Shaw in the long line of brilliant Anglo-Irishmen who have dominated the tradition of stage comedy since the Restoration — though he strangely omits William Congreve from the list. The author propounds "the concept of the Irishman playing to a foreign market", taking the view of the dramatist as an outsider, criticizing a society which was not fully his own.

This seems a contemporary perspective, stemming from the divergence of Southern Ireland from the rest of the United Kingdom in the past sixty years. Grene is on firmer ground when he invokes the example of Ibsen, whom Shaw sought to emulate, as a man both detached from and engaged with the society which he sought to change. The ambivalent position of the Anglo-Irish writer is one that has not yet been fully explored; it was a position which Shaw himself was happy to exploit. Grene's study makes a valuable contribution to a still-developing subject.

Shaw's concern was not, like his Anglo-Irish predecessors, primarily to entertain. As Grene puts it, he "was not just out to conquer London, but to change London." Much of Grene's study is concerned with the earlier social dramas and comedies, and with their impact on the mind of the day. Shaw attacked Victorian society, not where it was weakest, with its hypocrisy and greed, but where it was strongest, with its idealism and conscience. This could have a liberating effect, as in the case of the position of women, or the relations between classes and generations. But as Grene points out in his discussion of the plainest of Shaw's morality plays: "The thrust of *Major Barbara* is to convince us that we need the millionaire, the poet, and the saviours of souls, standing above the 'common mob', to make real progress possible. Unfortunately the twentieth century was to provide an all too sinister illustration of what Shaw's ideal looked like in practice." Regrettably, this insight is not carried through by the author into a discussion of the later apocalyptic plays, such as *On the Rocks*, where much of Shaw's earlier humanism had hardened into ruthlessness. But it is always a shock for liberal-minded people to discover that Shaw, who has helped to shape so much of the modern social consciousness, never believed in democracy.

The author undertakes a thorough analysis of *John Bull's Other Island*, the most neglected of Shaw's major plays. It is one that has resonance and significance for a contemporary audience not fully intended by the dramatist, but embedded in the play nevertheless. The author does raise some of the concerns of race and religion which the play deals with, but does not pursue them fully. The strength of his study overall lies in his critical analysis; it is too short to do real justice to Shaw's ideas as well.

Timothy Kidd

Dr Kidd is lecturer in drama at Ithaca College, London.

Ian Hacking

Ian Hacking is professor of the philosophy of science, at the University of Toronto.

Wounded soul

Sir Walter Raleigh: selected writings
edited by Gerald Hammond
Corgi, £14.95
ISBN 085635 4406

Sir Walter Raleigh is the most fascinating of the Elizabethans: a most accomplished courtier who despised courts; a buccaneer who read classical authors on the high seas; a reputed sceptic, named in the same breath as the atheistic Marlowe, who was capable of deep devotion and espoused the providential theory of history; a eulogiser of Elizabeth who was thought by her successor to be "too suave in censuring princes" and who enjoyed a posthumous reputation as a puritan and republican hero; an exemplar of what a Renaissance man might achieve who mordantly chronicled the achievements of men; a man of enormous talent, ambition and aspiration whose recurrent theme was decline and whose prevailing mood was disillusion.

If not quite the "far more serious poet than Sidney and Spenser" claimed by Ivor Winters, Raleigh is a more experienced, a more chastened one. His meditations on betrayal, nobility and corruption both anticipate the Jacobean and metaphysicals and recall the earlier Tudor makers, but the pressure of "those inmost, and

soul-piercing wounds, which are ever aching while uncured", prevented either the flight into grotesquerie, paradox and flashiness of the former or the consolation of the plodding plattitudes of the latter.

This is a man to be reckoned with, a man who deserves to be heard, but his complete works were last edited in 1829. Agnes Latham's edition of the poems and C. A. Patrides's abridgement of the *History* are both out of print, and the minor prose has not been available for over sixty years. So Gerald Hammond's selection not only answers a clear need but does so extremely well. It includes (in modern spelling) 28 of the 41 poems Agnes Latham gave as authentic, the *Report of . . . the Fight . . . between the Revenge . . . and an Armada of the King of Spain* (1591), most of *The Discovery of . . . Guiana* (1596), 150 pages of selections from *The History of the World* (1614) and five letters. This finely produced and very reasonably priced book also contains 14 pages of brief but pertinent notes, a bibliographical note and an excellent introduction.

This introduction offers no biographical information, but its handling of the texts is incisively appreciative. It claims for Raleigh's verse a stark, epigrammatic "plain style", discusses the narrative skill, the awareness of *realpolitik* and sardonic attitude of the prose, and points to "the collision of an energetic and strenuous mind with a nature which gravitated towards resignation and endurance" as what makes "Raleigh's writing so enthralling". This is all well said, but Raleigh is not merely grim. There is also to be remarked in him a vein of tenderness and sensitivity which saves his work from reductive cynicism and can give it a moving pathos. Although he has his feet on the ground and must reject the appeal of Marlowe's pastoral idyll "Come live with me, and be my love, he does so not with derision but with a deeply felt regret, alive to the allure of what his honest realism recognizes as illusion. The rejection in his disenchanting "Reply" is conditional: "could youth last, and love last, I had joys no date, nor age no need, / Then these delights my mind might move

If it seems unlikely these criteria will ever be met, still the imperatives of fact never, finally, deny the possibilities of faith and vision. Did he not, worldly wise and world weary though he was, seek El Dorado?

he neglected even to supply omissions his copyist had marked as wanting". The intricacies of the bibliographical, speculative sleuthing that is involved here (and it is intricate, worthy of Umberto Eco) are extraordinarily complex, though one might say that could finally hinge on such scholarship-defying questions as whether or not Donne was the sort of man who would send a botched presentation copy to a friend, or whether or not Donne's son was the sort of man who thought he could make a few bob out of his father's wastepaper.

But Sullivan's edition is unlikely to be the last word. It seems that Professor Charles T. Mark is preparing an old-spelling edition of *Blithematos* based, presumably, on the Q text, to be published by the Clarendon Press. Clearly this is only a pause between rounds.

R. D. Bedford

Dr Bedford is lecturer in English at the University of Exeter.

N. H. Keeble

Dr Keeble is lecturer in English at the University of Stirling.

People and the State
An Anthology of Planned Development
A. F. ROBERTSON

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CAMBRIDGE UNIVERSITY PRESS

BOOKS

Radical groupings

Radical Religion in the English Revolution
edited by J. F. McGregor and Barry Reay
Oxford University Press, £19.50
ISBN 0 19873044 6

Despite a new-found interest in the continuities, conformity and conservatism expressed in the English Revolution, the varied and exuberant forms of radicalism in that period continue to exert a powerful fascination on modern historians. Studies such as Christopher Hill's *The World Turned Upside Down* (1972) and, more recently, *The World of the Puritans* (1983) and *The Experience of Defeat* (1984) indicate the sort of preoccupations and questions which dominate this growing field. Such is its importance that there is now even a three-volume *Biographical Dictionary of British Radicals in the Seventeenth Century*.

By its very nature the term radicalism, as this volume makes clear, is a difficult and elusive one to define and handle. Its meaning was not constant throughout the rapid changes of the 1640s and 1650s but naturally varied over time and according to the different contexts in which it was expressed. A further complication is that its religious and political dimensions did not correlate exactly. For these reasons a total history of radicalism, even of religious radicalism, would be a mammoth and complex undertaking. This valuable collection of essays, therefore, sensibly restricts itself to the manageable task of exploring some of the oppositional forms of popular religion in the English Revolution.

Barry Reay's introduction provides the keynote through its insistence that "religion was both the legitimizing ideology of the rulers and the revolutionary ideology of the ruled." Revolutionary radicalism took a predominantly religious form. So, for that matter, as Christopher Hill's characteristically incisive chapter makes clear, did irreligion. The general framework established, we are offered individual chapters on Baptists, Seekers and Ranters, and Quakers - all of them informative and revealing and all squarely confronting the methodological problems associated with their particular subject. J. F. McGregor, for example, in his essay on the Baptists, has to explain not only the internal tensions between Particular and General Baptists and the transition from sect to deconsecration in the 1650s, but also the seminal influence of Baptist ideas and organization on others. Barry Reay, on the other hand, charts how the Quakers in the course of their first two decades not only grew greatly in numbers but also changed their nature by becoming more positively theological and pacifist. "The

Quaker impact had been somewhat negative. Its main effect was to stimulate political conservatism, to provoke and to some extent vindicate Presbyterianism, and to provide a shot in the arm to the reaction which in 1659-60 ended in the restoration of Charles II."

Quite different problems are revealed in McGregor's treatment of the Seekers and Ranters, namely those involved in pursuing amorphous religious groupings which never acquired a firm denominational identity. These are some of the problems which also confront Bernard Cripp in dealing with the Fifth Monarchists and popular millenarianism. But there are others, among them the need to reconcile the practical responsiveness of the pursuit of the millennial with its otherworldliness. "Overall the rise of the Fifth Monarchist owed less to evangelism than to the political drama of the 1640s which first created a millenarian tide and then, with the 'unrest' of the Rump and Cromwell, diverted it into a movement of protest against the great betrayal."

The two remaining essays in the collection deal with the Levellers and Diggers and are, therefore, by this fact alone, likely to be the ones most used by students. In the first of them, Brian Manning re-examines the much-debated links between the Levellers and religion. He concurs with Christopher Hill in regarding Leveller religion as a kind of "Arminianism of the left" and shows how it shaped and reinforced their assaults on political and social oppression and on the disease of poverty. In the second, Gerald Aylmer, as well as offering some discussion of the Digger movement and its reception, succeeds in making sense of the peculiarities of Gerrard Winstanley's religion. Though he defies neat religious classification, Winstanley's identification of God with Reason was fundamental to all his thinking and served to make his theology inseparable from his communism.

Here, as elsewhere in this volume, the contributors not only move into new territory but take issue with what has been written before by others. And, though writing about the seventeenth-century past, some at least of the essays keep an eye on the present. Ordinary people in the English Revolution, the editors state in their preface, "campaigns for notions that have yet to be realized: there is much that we can learn from them." Tony Bean is quoted as an analogy made with present-day Iran. Stimulating as it is, however, this collection of essays cannot pose all the questions that need to be asked about radical religion in this period, let alone provide all the answers. For its value, therefore, consists of the pointers it provides towards other areas of research. We need to know much more, for example, about the contrasts between the religious radicalism of the towns and the countryside and need to go on investigating the religion and politics of the rank and file of the army.

R. C. Richardson

Dr Richardson is head of the history and archaeology department at King Alfred's College, Winchester.



"The Violinist at the Window", a painting by Otto Franz Scholderer, 1861, an illustration from *The Book of the Violin* edited by Domitile Gill, published by Phaidon Press at £20.00.

Behind the glamour

The Rise of Merchant Banking
by Stanley Chapman
Allen & Unwin, £18.00
ISBN 0 04 332094 5

In his marvellous book *Bankers and Pastors* David Landes called merchant banking "the most difficult specialty of a difficult profession". International financial operations involve by their very nature risks and delays not present in ordinary domestic banking.

As the name implies, merchant bankers working in overseas trade making use of a basic instrument of international payment, the bill of exchange. Gradually some of these merchants came to develop the practice of dealing in bills - accepting them, thereby providing working capital for those actually trading and absorbing the risks of default and of fluctuating

exchanges. A mixed group of British, German, Greek and American merchants emerged from the French wars to build up an unrivalled business in acceptance and for the rest of the century it remained the bread and butter of all merchant banking. The most prestigious went into the business of arranging loans for governments in all parts of the world - rarely with enough resources to finance the loans themselves but acting rather in the role of catalysts. New firms came in to develop new fields, above all to act as investment bankers, first of all for the financing of railways and then for industrial projects generally.

Dr Chapman's book is concerned with the growth of merchant banking in the City of London before the First World War. His main problem has been the unwillingness of firms to open up their archives, with the notable exception of Kleinwort Benson. Most of the existing "histories" written by journalists or retired executives can most kindly be described as romantic fiction; the Baring crisis of 1890, for example, was the most traumatic event that the City faced during the whole of

the century yet no records are available either from the firm or from the Bank of England. One must therefore presume that something more scandalous was going on than even the existing accounts suggest.

Despite these limitations, Dr Chapman has produced a remarkably comprehensive account and very properly he emphasizes the individual involved because merchant banking was then above all a very personal business. Most writers have emphasized the unity and integration of the Rothschild family as its business grew after 1813, but the book makes it clear that Nathan Meyer Rothschild, founder of the English branch, was an entrepreneur with a business ability far exceeding that of his brothers and was very much a law unto himself. For him success came from concentrating on the essence of merchant banking - the financing of foreign trade. The second and third generations, Rothschilds, entering the world of finance, flattered the peerage, did well enough and were still considered commercially inviolate - after all the prime requisite of the business - but they were not remotely of the same quality as N. M. and the house lost its leading role. It was said of Alfred Rothschild just after the turn of the century that he drove all the best men out of the firm because his behaviour was so utterly unbearable and he treated men of thirty years' service as if they were office boys. Barings, who emerged at much the same time, lost ground too because of an absence of enterprise and it is significant that they almost went down in 1890 as a result of unjustifiable speculation and crass ineptitude. Their plight aroused no sympathy in the City; the banks saved Barings to save themselves.

However, plenty of new blood came in from overseas especially from Germany and the City's preeminence in world trade finance was preserved, though in investment banking it was another story. If most of the old established firms stuck to the public school/Oxbridge route for their partners, leading a relatively leisurely kind of life with short hours, long lunches and amiable, even generous competition, the newcomers were of a different mould. The pace was far more intense, the social rewards less important. Even so their immediate environment was essentially foreign, their commercial loyalties international. They had hardly more interest in fostering British industry than any other industry. The training and experience led them towards trade and government finance and not to manufacture.

Today merchant banking is seen as a truly glamorous industry. In this admirable book Dr Chapman shows that it was by no means always so. The acceptance business was the make or break element; it rarely hit the headlines but it was what the City did best and in so doing served the economy well. For the rest it was a distinctly patchy story - but one cannot expect to have everything.

S. B. Saul

Professor Saul is vice chancellor of the University of York.

BOOKS

The white guard

Pretoria's Praetorians: civil-military relations in South Africa
by Philip H. Frankel
Cambridge University Press, £22.50
ISBN 0 521 26440 5

The armed forces play an increasingly important part in the life of South Africans - whether it be white families sending their sons for national service; black urban dwellers seeking to find their township surrounded by troops; or government officials implementing the decisions of "the alternative cabinet" - the State Security Council in which the military play a leading role. The explanation for this lies mainly in the internal and external threats facing the white dominated state, but it has been reinforced by P. W. Botha's faith in the military, following his years as Minister of Defence. Botha is an organization man, who, like the military, wants things crisp and clear.

In this handsomely published book Philip Frankel sets the military in a social context, arguing that they cannot be understood as a simple tool of government, but rather as a subgroup of society which has inherited two distinct traditions - the "liberal" British approach of military subordination to the civil government, and the "commando" ideal of the old Afrikaner

Republics in which the roles of citizen and soldier run into each other. With the increasing pressure on the state and the high proportion of Afrikaners in the permanent forces, including an officer class which reflects recent Afrikaner social advancement, the future, says Frankel, lies with the commando tradition.

The military leaders have promoted the concept of the "total strategy", which is a counter-revolutionary programme designed to meet the diverse threats to the Republic and which gives the military an interest and say in most aspects of society. However, if Frankel is correct that the ideological manipulation for the "total strategy" requires a clear, simple political message, the government could be in trouble, for its new constitution is neither clear nor simple.

Since the 1950s there has been a substantial increase in the expenditure on South Africa's armed forces, but measured as a proportion of government expenditure it is much less than most third world states and no more than average for western countries. However, such figures mask the great military superiority the Republic enjoys over her black neighbours, and they mask the size and strength of the armed forces and the arms industry. This strength is only achieved through great demands on the white population. While it cannot be said that white men are committed from the cradle to the grave, they are, from a combination of full-time and reserve obligations, liable to military service from school to their old age pension. So great are the demands on white manpower that the government has turned to recruiting blacks, and although they still constitute only a small proportion of the forces the experiment has gone

reasonably well from the government's viewpoint, including many examples of racial cooperation. However, as Frankel says, this probably represents a common response to shared circumstances rather than a broad change of attitudes.

Limited white manpower is not the only restriction placed on the military. Frankel also notes that white farmers are deserting border areas, that there is a gap in perception between the military and business interests, that bureaucratic rivalries exist within the government, that the large national service extends civil influence into the forces as well as military influence among the civilians, and that there is resistance among young English speakers to national service. He is right to note these matters but there is a danger of exaggerating their importance, for if the existing order is in real danger the vast majority of whites will rally behind the government. Frankel sees the military neither as a "liberal" nor "conservative" factor in white politics, but rather as a mirror of mainstream white views. However, with the British tradition of a clear civil/military divide already abandoned, and with violence increasing, Frankel sees a future of increasing military involvement in running the state. He speculates about the possibility of a "creeping coup" as the National Party and the armed forces extend their cooperation in the search for security. If such developments do take place Frankel sees nothing but trouble for all South Africans.

James Barber

James Barber is master of Hatfield College, University of Durham.



Boys from a police training school in Singapore, from *Raffles: the story of Singapore* by Raymond Flower (Croom Helm £14.95).

Power of ideas

Fabian Essays in Socialist Thought
edited by Ben Pimlott
Heinemann Educational, £19.50 and £8.50
ISBN 0 435 33680 3 and 33681 1
Educate, Agitate, Organize: 100 Years of Fabian Socialism
by Patricia Pugh
Methuen, £16.00
ISBN 0 416 39080 3

Recent publications dealing with the British Labour movement have been preoccupied with the question "How is the Labour Party to be saved?" This problem features strongly in both these new publications, issued in connection with the centenary of the Fabian Society.

Fabian Essays in Socialist Thought is by far the more ambitious of the two volumes. It is a critical, but optimistic, collection of essays which attempts to provide an historical introduction to Fabianism and to enliven debate about future socialist policies. In this sense the volume offers much the same recipe and variety of discussion as did a predecessor, *Fabian Essays in Socialism*, in 1989. What gives the present volume its unity and purpose is the prevailing belief that the Labour Party, and indeed the whole of the Labour movement, will best survive and de-

velop if it holds to the views of the left. There is little in it to suggest that amending the existing socialist programme of Labour will bring about the party's revival and much to recommend the development of socialist ideas. Indeed it is salutary to reflect, as does Ben Pimlott in his illuminating opening essay, that monetarism was marginal to Conservative policies in 1979 but soon came to occupy the centre stage of politics when the level of debate was raised. Pimlott's reflections, already republished in the *Guardian*, suggest that the Labour Party could revive if socialist thought was discussed along the lines adopted by monetarists: "it is legitimate to learn from the enemy". In the concluding essay, Steven Lukes takes up the same theme: "we need to rethink and restate these principles in a way that will evoke a response from people who are justifiably sceptical of the socialist record... but for whom the available prospects offer bleak prospect indeed."

Between Pimlott's meaty offering and Luke's unbridled appeal lie 17 essays which cover the range of Fabian interest. They divide into two types - the broadly historical and the determinedly polemical. John Stevenson provides an illuminating essay on the social and political context out of which Fabianism emerged. On the more polemical side, Bernard Crick writes a missionary piece on equity and Philip Whitehead appeals for pay of results in education and the disadvantaged. In the best Fabian tradition, the various essayists contradict

each other in charting their separate courses. Yet certain strands do emerge. Most obviously there is the conviction that socialists should rid themselves of market economics. Additionally, there is the general acceptance of the need to revive the spirit of brotherhood, fellowship and equality combined with the concern to temper the notion of the Fabian state being just a bureaucratic state.

Patricia Pugh's centenary publication on the Fabian Society is much less controversial but is, nevertheless, a weighty and worthy piece. It is a comprehensive survey of the activities and ideas of the leading Fabian figures and is studied with references to the Webbs, the work of H. G. Wells, the concern for the women's franchise, the activities of the Fabian Research Department and to its recent difficulties. Yet one is constantly aware that this volume is an official history; the critical edge of comment is dulled by the kept nature of the piece. There is the tendency to follow the main line of national developments rather than to explore the provincial avenues along which Fabian ideas have to travel if they are to have meaning or influence. Given the important propaganda work undertaken by the Fabians it is not sufficient to define Fabianism in Sydney Webb's phrase as "the work of individual Fabians". In the final analysis, Fabianism has to be more than the great figures handing down their ideas for discussion. It must also be about the process of discussion and dissemination. In this volume that context is missing. This is a solid work in the old style of old history, but where are the rank and file and how potent was, and is, Fabian influence? The work of *MoBriar on the Influence of Fabian Socialism* has not yet been superseded, despite the passage of about twenty years since it was first published.

The Fabian Society was a master of propaganda and the late nineteenth century and its views were seminal to the emergence of a viable Labour Party. Fabians realized then that ideas in a void were a waste of time and effort. Perhaps these two publications, recalling past glories and seeding future debate may rekindle a meaningful discussion about Labour's future strategy. The power of socialist ideas may yet transform the parlous state of the Labour Party, if properly developed and presented. The development of some of political compromise among moderate policies, may yet, after all, be Labour's redeemer if the Fabian Society has its way.

Keith Laybourn

Keith Laybourn is senior lecturer in history at Huddersfield Polytechnic.

Conspiracy to deceive foreigners

A House Divided: Argentina 1880-1980
by Eduardo Crawley
Hurst, £15.00
ISBN 0 905838 74 2

Argentina is a country where *liberals* are invariably conservatives and where *conservatives* are generally liberals. Leaders of its *radicales*, among them President Raúl Alfonsín, are characterized precisely by their lack of radicalism. Meanwhile its *nacionalistas* have been known to intone demands for "popular power" in virtually the same breath as they have welcomed the coming of a "third tyranny" as a sequel to the Rosas and Perón regimes. In short, Argentina is a political conspiracy designed to deceive foreigners.

Fortunately for the foreigner, Eduardo Crawley addresses himself to an international audience and explains such paradoxes clearly and succinctly. He is assisted in his task by Argentine journalist Rodolfo Torrigio, whose brief geo-political foreword immediately transports the reader to the South Atlantic. There, then, follow pages in which the author displays his literary flair and brilliantly succeeds in conveying the ecological wealth and diversity of the misnamed "land of silver".

Regrettably, this early promise is not maintained. For one thing, the book is lopsided. It purports to cover a century of Argentine history, yet the first fifty years are dispatched in just over a hundred pages and more than half the 445-page book is devoted to the final twenty years. The early chapters ignore some major academic contributions on classical radicalism, the labour movement, and the origins of Peronism. As a result, the author underestimates the size of pre-Perón trade union affiliation. Elsewhere he confuses Spain's dictator of the 1920s, Miguel Primo de Rivera, with his son José Antonio, founder of the Falange.

Crawley's treatment of the Perón era will annoy *peronistas* and *anti-peronistas* alike, without satisfying academic experts. Perhaps it is the author's journalistic instinct which leads him to home in so repeatedly on conflict. Despite some even-handed references to Perón himself, the chapters on the Peronist administrations of 1946-55 dwell excessively on opposition to the

regime. Crawley illustrates how the liberal opposition of 1946 was joined by disaffected nationalists in the early 1950s, but he pays little attention to Peronism's devotees. The uninitiated are left wondering just how it was that Perón held out for so long and inspired such durable loyalties among millions of Argentines.

The best part of the book is a free-flowing account of post-1958 political events, interspersed with economic commentary. Yet even here the author restricts his analysis to major happenings and offers no long-range or thematic observations. The growth of insurgency, for instance, is detailed graphically, but the only reason presented for it is the spread of certain new ideas (which were circulating too in lands where insurgents were less effective). Moreover, there is a degree of misrepresentation: the Montoneros appear as more left-wing and calculating than they really were, whereas the *Guerrilla Ejército Revolucionario del Pueblo* is classified as "Trotskyite" even after its categorical renunciation of Trotskyism and withdrawal from the Fourth International in 1972.

A further problem resides in the status of the information. For a book dealing with a country where fact and fantasy enjoy a lasting romance, footnotes must be the serious reader's preference. Here there are just references listed alphabetically, chapter by chapter, with the result that details can be followed up only by readers holding research fellowships. What, one wonders, is the source of the claim that 2,000 rifles and 5,000 pistols purchased by Eva Perón were distributed to "trusted cadres" of the General Labour Confederation? One of those trusted cadres, Amanda Cabo, in the early 1970s put the figure at about 100 pistols having been handed out before Perón and the army put a stop to it. A detail, certainly, but one which is crucial to any judgement on Peronism's revolutionary pretensions.

These criticisms notwithstanding, Eduardo Crawley has produced one of the best-written books on Argentina to appear in recent years. He is one of the few observers who are equally competent in political and economic matters, and his analysis of the Lanusse-Perón duel of 1972-3 is particularly perceptive.

A *House Divided* could have gone further in examining the sources of division but it is a useful introduction to recent Argentine regimes.

Richard Gillespie

Dr Gillespie is Sir James Knott Fellow in the department of politics, University of Newcastle upon Tyne.

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Energy and vision

Victor Duruy and French Education: Liberal Reform in the Second Empire
by Sandra Horvath-Peterson
Louisiana State University Press
£28.50
ISBN 0 8157 1157 0

Victor Duruy was appointed minister of education in 1833 as part of Napoleon III's attempt to liberalize his formerly despotic regime. Duruy was a teacher who had acquired a wider reputation as a historian, and his working-class origins made him unusual among the ministers of the Empire: his father was a weaver at the Gobelins tapestry works, and he worked briefly there himself. His undoubted intellectual liberalism, his marked anticlericalism, and his paternalistic social views made him a characteristic representative of the democratic and moderate vision of the third republic, and he was to reform the

morale of the French educational world.

Sandra Horvath-Peterson's book is based on a thesis completed in 1971, but since then much has been written about education under the Second Empire, including a study of Duruy's education by Jean Robin. Horvath-Peterson's book is longer than Robin's, and based on a more comprehensive range of sources, but it does not now add much to our knowledge of the subject. Her book is weakened by an almost entirely uncritical approach, which tends to exaggerate the novelty and the radicalism of Duruy's ideas.

He is perhaps best remembered today for his attempt, bitterly opposed by the church, to extend state secondary education to girls, and for the foundation of the *École pratique des hautes études* through which the state Duruy's work for higher education was particularly significant, because it was in the 1850s that French opinion first became conscious of the need for scientific and intellectual education from Germany. Since the day of Napoleon I, higher education in France had been little more than an organized collection of professional schools, examining bodies, and celebrated but unproductive academic institutions. The task of widening these

into a modern university system was to be achieved only under the Third Republic, but Duruy is rightly seen as the initiator of the movement.

Consciousness of the needs of science and industry also lay behind his introduction of "special" secondary education, a shorter and more practical alternative to the traditional classical curriculum. Horvath-Peterson's treatment of this does not go very far below the surface; the reform was in fact only a development of previous experiments, and its social implications were ambiguous. For like similar innovations in other countries at this time it was designed partly to relieve social pressure on the lycées and divert the ambitions of the lower middle class away from the professions.

Duruy's most radical plan was to make primary education free and compulsory. He gave Napoleon III the chance to associate his name with a major reform, but the chance was missed. In social matters the regime was fundamentally conservative, and Duruy's fellow-ministers were never willing to give him access to increased funds - all his projects were financed by borrowing and improvisation. Napoleon had appointed him for political reasons, to counter church influence, and he never really integrated his educational reforms for his own

sake. When Duruy published his plans for primary education in 1855, he was disavowed by the government. He swallowed this humiliation, and put through a more modest programme of improvements, but he was eventually dismissed in 1869 when Napoleon's need to conciliate the Catholic party made him a political embarrassment.

Duruy lived until 1894, wrenching the Third Republic's reforms with sympathy, though his own anticlericalism and the idealist philosophy on which it was based were tempered by a spirit of religious compromise which his successors abandoned. He also maintained a disfigured loyalty to the memory of Napoleon III, which in an age of Republican orthodoxy prevented him receiving the credit which his pioneering policies deserved. His posthumous memoirs, however, painted an attractive picture of his multifarious activities on which all historians have since relied. For the English reader, Horvath-Peterson provides a clear, accurate and sympathetic guide to an instructive phase of French educational reform.

Robert Anderson

Robert Anderson is senior lecturer in history at the University of Edinburgh.

BOOKS

A measure of chaos

The Second Law
by P. W. Atkins
Scientific American Library
Freeman, £16.50
ISBN 0 7167 5004 X

It is generally agreed that thermodynamics is a difficult subject. Those who believe they understand it will usually confess that they had to attend more than one lecture course before it began to make sense; and, as is not unusual in such cases, they do not now see what it was that baffled them. Almost always, however, the sticking point is entropy. Rightly or wrongly most students know, before they ever meet it in lectures, that it is a peculiarly impenetrable concept, and start with an unnecessary psychological barrier.

If this is the root of the matter, Dr Atkins's suave and confident manner should work wonders. He thinks the idea of entropy, interpreted as a measure of chaos at the atomic level, is if anything easier to grasp than energy, and he goes to considerable trouble to clarify the way in which chaos can be quantitatively described. To succeed in this is no mean feat, if you limit the means of discussion to diagrams and very simple formulae. Indeed, the expert will soon realize that there are gaps in the argument that will have to be patched up in a more advanced treatment. And it is precisely the difficulties hidden behind the plausible words that cause students of physics and engineering to worry when they meet conventional treatments.

Nevertheless, it is possible that a good chunky account of what thermodynamics is about will provide just the conceptual background to rob a more rigorous approach of its terrors; and that the reader who has no intention of taking the matter further will appreciate the clarity of the explanation on a level that is not available in any other recommended school and college libraries to buy copies and see how it goes.

Although I make this recommendation in good faith, hoping that my doubts will prove unjustified, I confess to serious doubts about the style and some of the matter. I couldn't help being reminded, reading about Jack and Jill and their little engines, of the lectures my professor gave when I was a student. He beamed benevolently over the top of his spectacles as he told us in the cosiest way how to think about optical phenomena - and we looked at, although the material he was presenting was absolutely first-class. Here similarly the combination of avuncular presentation and pretty pictures runs a considerable risk of deterring those who could benefit most. The graphic design, with the splendid dustcover and the wide margins on heavy shiny paper, attracts at first and then satiates. The designer has had a field day in chapter five where the description of how heat engines work (a less than enthralling topic) is so enlivened with dazzling coloured diagrams that I cannot bring myself to try to understand. Holding one's tongue for books like Sir Arthur Eddington's which deal with deep matters in austere prose and never even a line drawing. That was what turned my generation's thoughts towards science - the feeling that the great man was sharing his exciting ideas with us in a language appropriate to readers who

wanted to know, but lacked the technical equipment for a professional exposition. That feeling is quite absent here. The wordiness makes one wonder whether the author really respects his audience.

Admittedly, I am concentrating on the middle sections of the book, the worst. The early chapters are good and in the last part the copious diagrams are relevant, though still too numerous and disruptive for my taste. But I do applaud the unconventional material, which presents an introduction to actively chaotic systems and to self-replicating and evolving patterns. The non-scientist or novice should find this fascinating, and so will many working scientists.

The blurb begins by recalling C. P. Snow's remark that not knowing the second law of thermodynamics is like not having read anything of Shakespeare. It is only fair to Snow to point out that in "A second look" he regretted this remark and wished he had chosen molecular biology instead of thermodynamics as a touchstone of scientific literacy. Of course, he is right; however subtle the methods, however penetrating the imagination, that have gone into molecular biology, the basic structures that have been revealed do not require any great mental training to be appreciated. By contrast, thermodynamics is intelligible only after the mind has been bent in the right way. Thermodynamics is not difficult to those whose minds take to it - but it is like a foreign language and needs preparation. If Dr Atkins's book turns out to provide an effective introduction to this language and literature, he will have achieved something really worthwhile.

Brian Pippard

Sir Brian Pippard is emeritus Cavendish professor of physics at the University of Cambridge.

Vital elements

Bio-inorganic Chemistry
by Robert W. Hay
Ellis Horwood, Wiley,
£11.00 and £9.50
ISBN 0 85312 200 8 and 766 2

Some time ago a biologist when asked about the chemistry of inorganic elements in biology (bio-inorganic chemistry) would have told the questioner to look up bones and shells. Neither of these topics is even in the index of this book. It seems that a whole new subject of inorganic atoms in biology has been discovered, chapter after chapter dealing only with metal-containing molecules and their functions in biology. How would a biologist of the first half of this century have reacted to such a book? Only, I suspect, as the Pope reacted to Galileo.

Putting together several parts of the book, we can say that we know now that the electric circuits of biology, both electronic and electrolytic are due to inorganic elements. Although it is known from the beginnings of physiology nearly 200 years ago that nerve currents are movements of sodium ions, it was only recently that the need was felt to study such movement in the context of the chemical composition of the nerve channels. The arrival of this new bio-inorganic chemistry is a new nerve cell with another, a new junction with a muscle cell, and many another cell-cell connection; for

quently uses a second messenger. Surprisingly this is another inorganic element, calcium. Although the calcium ion is not quite the universal transducer of the nerve current into an activity, it very often performs this role: most hormones released, contractile activities (as in muscle), fertilizations, and digestions are triggered by calcium - how different from its role in the crystalline building blocks of bones and shells. Again the current carriers of the brain are not electrons, as in modern computers, but they are electrolytes such as sodium, potassium, magnesium and calcium ions. What kind of "computer" is this?

The electron is of course used in biological circuits, but only in membranes and covering only 10 nanometres at a time - that is, the "wires" are only 10⁻⁸ metres long. Such circuits are made from iron or copper atoms placed fairly regularly inside proteins. This construction is at the heart of the energy capturing devices of biology and corresponds to man's photocells and fuel cells. Units of these biological energy traps generate the green colour of leaves and the colour of red muscles.

The author also explains that metal atoms are used elsewhere in living cells. In fact the carriers and reaction catalysts of many small molecules depend entirely upon them. Outstanding examples of carriers are the use of iron in the red haemoglobin of blood to carry oxygen in man and the contrast-use of copper in the haemocyanin of the blue blood of the octopus. Metal catalysts are everywhere. Molybdenum is central to the fixation of nitrogen from the air, zinc is required in the reactions of carbon dioxide, and manganese in the conversion of water to oxygen in plant leaves. The essential nature of specific metals for particular processes in which they cannot be substituted by other elements reflects the sophistication of biological chemistry in its revelation of optimal solutions to chemical problems - the essence of Darwinian selection. Yet in this sophistication there lies a risk.

Reading between the lines it is easy to see that the evolution of inorganic chemistry in biology has taken thousands of millions of years in relatively stable chemical conditions. Foolish is the country that does not know this and thinks no hazards develop from adjusting the availability of inorganic elements to biological systems. It is in the shame of this country that it is so reluctant to ban lead in petrol and to stop aluminium release by acid rain. These elements are poisons. Bio-inorganic chemistry does have its gloomy side, but there is a better face to the subject, as poisons and useful drugs are close relatives. The development of lithium drugs against hyperactivity and platinum compounds against cancer are used to illustrate that the appropriate release of an element which biology does not use can produce a medical treatment. The analytical skill and the chemical insight which has led to the unravelling of all this inorganic chemistry in biology is the theme of this book. Although it does not aim to be right up to date and it might seem somewhat elementary, it presents many interesting facts in a pleasing way. It is a teaching book and a necessary one. It is a pity, however, that now the wood is visible, the trees have got lost - the bones and the shells are missing. There is another book to be written which brings minerals to life.

R. J. P. Williams

Dr R. J. P. Williams is a Royal Society Research Fellow, professor of inorganic chemistry at the University of Oxford.



Brass head of an Oni with crown and facial striations (twelfth to fifteenth century), from Werner Gillon's *A Short History of African Art* (Viking, £20.00)

Small fry

A Functional Biology of Sticklebacks
by R. J. Wootton
Croom Helm, £17.95
ISBN 0 7099 2785 1

Greyling geese, honey bees and three-spined sticklebacks belong to a select group of organisms which have helped their researchers towards Nobel prizes: Niko Tinbergen noticed territorial male sticklebacks directing attacks towards a red Post Office van through the aquarium window. Since then, sticklebacks have become much-researched animals.

Although the title of Dr Wootton's well-written account of these fascinating little fish, one of a series on functional biology, might suggest a restricted audience of fish biologists, it should have a much wider appeal. Major conceptual issues in both physiological and evolutionary fields are interwoven with accounts of the stickleback's natural history and, for the specialist, pleasingly critical summaries of recent experiments.

Sticklebacks, with few close relatives among other fish, invaded freshwater repeatedly from the sea since the Miocene period about 25 million years ago. Wootton uses the seven living species as "relict-trait living organisms" to test the "seductive elegance" of modern theory. In 11 chapters, the book contains succinct treatments of fundamental issues. For example, zones of tolerance for temperature and salinity, within which fish may barely survive, are instructively distinguished from the narrower confines forming the "ecological niche", where populations must be self-supporting.

Particularly enjoyed the well-organized section on reproduction, which opens with allocation of resources through hormonal and other controls. Next we learn how stickleback behaviour and ecology is shaped by choice of sexual partner. The pioneering work of Tinbergen and his students is critically revisited. The idea of a single sex being a simple releaser of aggression towards rivals can be misleading. Males release the cost of courtship through a "dear enemy" effect, not allowing neighbours to do it for them. The famous 1922 study of the fish, showing a male to be a territorial defender, is

rarely the simple reaction chain favoured by early ethologists. In fact, smooth courtship sequences are regularly interrupted by the male threatening the gravid belly of his spouse with sharp erect spines. The male then nips back to tiltivate his nest. Wootton concludes that this "dorsal pricking" behaviour serves to keep the female on the territory border while the male switches mind from aggression to sex.

Like many other fishes, father sticklebacks are left holding the babies while mother deserts her spouse and offspring. Fathers have to oxygenate developing eggs by fanning, an energetically operation. Some species build nurseries of twigs for hatched fry, or stray fry are retrieved in their father's mouth and pipetted back into the nest. The book describes how brooding fathers face many hazards, not least other sticklebacks. Pale sneaky males glide surreptitiously to a rival's nest, where they may interrupt a copulation and father their own offspring. Resident's eggs may be eaten, while eggless nests are wrecked. Packs of enthusiastic egg-raiders are described in one Camundian lake.

Wootton gives a brief but lucid account of stickleback support for three competing life-history theories. First, sticklebacks fit unusually into an older framework, which distinguishes alternative strategies of high fertility/efficient use of resources. Second, he shows that there is not enough data to test the "hot-hedging" theory that life history is a gamble against the vagaries of the environment by maximizing survival in either the juvenile or adult stages. Third, Wootton discusses the idea of a trade-off between, or valuable resources to breed now and later, opting to grow now and breed later. Wootton concludes, rather cautiously, that the behaviour of sticklebacks is not incompatible with this theory.

Other stimulating sections analyse the evolution of small size, and intriguing populations whose males have black nuptial bellies, despite the females' preference for red-bellied males. Although I sometimes found the author too willing to sit on the fence after weighing the pros and cons of an argument, his book should succeed in its stated aim of stimulating simple research projects which test current theory.

T. J. Pitcher

T. J. Pitcher is senior lecturer in zoology at the University College of North Wales, Bangor.



Honours for Foot, Scarman and Aberdare

Honorary Degrees

UNIVERSITY OF WALES (Prifysgol Cymru)
MA: Mr Wilfred Harris, in recognition of service to University College, Cardiff, as admissions officer.
MMus: Mrs Margaret Moreland, in recognition of services to opera in Wales.
LLB: The Rt Hon Lord Aberdare, in recognition of public service. The Rt Hon Lord Scarman, in recognition of

his distinction as a lawyer and judge. DSc: Professor Emeritus William Wilcock, in recognition of his contribution to civil and structural engineering. DLit: Professor Per Denez, in recognition of his contributions to Breton culture and to cultural links between Brittany and Wales; The Rt Hon. Michael Foot, in recognition of his distinction as an author and literary critic. The Rev Gomer Morgan Roberts, in recognition of his contributions to the history of Methodism in Wales and to Welsh hymnology. DD: The Rt Rev Dr Gwilym Owen Williams, in recognition of his service as Archbishop of Wales.

Appointments

Liverpool University's first writer-in-residence is to be the novelist Barry Unsworth, whose *Underwreath's* Giff won the Heinemann Prize in 1973. His eighth book, *The Stone Virgin*, is to be published in the spring.

Dr G. R. Brown has been appointed vice-principal of Christ Church College, Canterbury.

Dr Robert Handcombe has been appointed to the post of director of the commercial and industrial development bureau at the University of Sheffield.

BELFAST, QUEEN'S
Lecturership: Dr Michael Scott (hospital pharmacy); Dr John Elder (computer science); Stephen Livingston (common law); Katherine Morton (law-temporary). Information director/head of information services: Alfred McCreaty.

Grants

LEICESTER: Dr M. A. England, £1,992.50 from Gunnar Nilsson Cancer Research Trust Fund (primordial germ cells and gonadal tumours); Dr P. A. Clark, £1,200 from J. Meadows, £2,483 from SERC (observations at UKIRT); Dr D. R. Catcliffe and Dr I. C. Talbot, £1,650 from Leicestershire Medical Research Foundation (adrenaline basement membrane proteins and metastasis of human rectal carcinoma); Professor M. C. R. Symons, £4,454 from Cancer Research Campaign (ionizing radiation and proteins); Dr J. A. Tanner, £15,912 from Michael McCough Foundation against Liver Disease in Children (study of copper ingestion in aetiology of childhood cirrhosis); Mr P. A. Clark, £900 from the Nutfield Foundation (voluntary associations in England in seventeenth and early eighteenth centuries); Dr P. A. Clark, £1,200 from Committee of the European Communities (student exchange schemes); Professor A. R. S. Pontor, £8,010 from British Railways Board (computer modelling of the development of an urban area); Dr P. A. Clark, £1,200 from A. R. S. Pontor, £4,000 from UKAEA (analysis of structural shakedown experiments); Dr P. A. Clark, £1,200 from MRC (taxonomic studies of lipophilic corynebacteria of medical importance); Professor D. B. Barnett, £1,600 from Trust Regional Health Authority (human placental alpha adrenoreceptor); Professor T. B. Jones and Dr T. R. Robinson, £3,479 from SERC (radio and radar studies of high latitude ionospheric modification by means of high power radio waves); Dr P. M. J. Shelton, £193 from NERC (effects of light on eye structure in Nephrops norvegicus).

LONDON, QUEEN MARY COLLEGE: Professor G. J. Hancock, Dr L. Bernstein and Dr J. H. Horton, £77,224 from SERC (boundary layer characteristics on aircraft with periodic flow); Dr A. Thorpe, £21,119 from SERC (localization, purification and structural studies on opiod-like and other novel neuropeptides from the brain); Professor R. Bonnett, £3,430 from SERC (chemical compounds); Professor D. C. Bradley, £17,291 from Ministry of Defence (precursor molecules from MOCVD of III-V compounds); Dr J. M. Bonnett, £3,430 from SERC (chemical compounds of transition metals); Dr L. A. Wood, Mr S. R. Riden and Mr N. W. M. John, £22,988 from SERC (behaviour of earth retaining walls and associated structures); Professor F. H. Peston, £20,000 from SERC (analysis and development of public expenditure); Professor A. D. Oliver,



Open University viewing

Saturday January 19

11.00 Open Forum: Information programme for OU students (late the Open).

11.00 Accounting for Managers: Keeping the books open (1971; course 2).

12.15 Understanding Pregnancy: Pregnancy - a time to grow (1982; course 1).

Sunday January 20

09.00 Science foundation course: Preparatory maths - graphs (S101; course 3A).

10.30 Open Forum: Information programme for OU students (continues to the OU).

11.00 The Effective Manager: Crisis or control? (1976; course 3).

RADIO (4VHF)

06.00 Open Forum: Information programme for OU students (late the Open).

NOTICE BOARD

Events

The International PEN is presenting a poetry reading with slides entitled "Moderne Kunst im Bildgespräch" at the Goethe-Institut on January 31 at 7.30 pm. Margot Schargberg will read from her own work. Admission at 50 Princes Gate, London SW7 2PH is free without booking.

A general meeting of the Institute of Mining and Metallurgy will be held at the Geological Society, Burlington House, Piccadilly, London W1 on Thursday, February 21 at 5.00 pm. There will be papers on ore petrography, mineral chemistry of zinc and the relationship between tectonic terranes and favourable metallogenic domains in central African/Nubian shield. Visitors are welcome.

The 1985 Home Economics Research Conference will be held at Roehampton Institute of Higher Education, London, on September 10 to 12. Details from A. V. Ward, Digby Stuart College, on 01-876 8273.

The 1890s saw a move away from the narrative - and moralizing - style of Victorian British art and towards a more "continental" style concerned with form and colour rather than extrinsic content. Works from the period will be on show in the exhibition "The New Century: British Art 1890-1915" at the City Art Gallery, Mosley Street, Birmingham. On display are works by Conner, Sickert, Steer (above), Gore, Glaner and Gilman. The exhibition runs from January 15.



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Polytechnics continued

North Staffordshire
Polytechnic
Department of Sociology

LECTURER IN
SOCIAL
PSYCHOLOGY/
SOCIOLOGY
2 POSTS
SENIOR LECTURER
LECTURER
GRADE II/
LECTURER GRADE I

Salary Scales: Senior Lecturer £17,175 - £18,128 (Bar); Lecturer Grade II £14,061 - £15,089; Lecturer Grade I £12,510 - £13,512.

Applications are invited for the above posts from candidates with a degree in Sociology and teaching experience. The successful candidate will be expected to contribute to the teaching of Sociology on a range of degree and diploma courses including: B.A. Sociology, B.A. Business Studies, B.Sc. Information Systems, B.A. Sport and Recreation Studies, and (ii) to contribute to the teaching of one or more areas of applied sociology, e.g. A.S. Sociology and related degree courses.

The appointments are available from 1st May 1985.

Application forms and further particulars may be obtained from the Director of Higher Education, North Staffordshire Polytechnic, College Road, Stoke-on-Trent ST4 2DZ. Tel: (0785) 45531. Ext. 211.

The closing date for receipt of completed applications is 4th February 1985. 113

The Hatfield
Polytechnic
Herfordshire

LECTURER/
SENIOR LECTURER
IN ELECTRONIC
ENGINEERING

£7,805 - £12,358/£11,432 - £14,318

Our Division of Electrical Engineering would welcome applications with a good honours degree in Electronic Engineering or an allied discipline, who wish to teach and research in a lively academic community.

We provide courses at undergraduate, degree and postgraduate levels with a bias towards digital systems, microelectronics and telecommunications. Experience in engineering of real time systems would be a particular advantage.

Further details and application forms available from the Director of Higher Education, Hatfield Polytechnic, PO Box 109, Hatfield, Herts AL10 9AB, or Tel: Hatfield 76110 9AB.

Please quote reference: 983. Closing date: 31 January 1985. (51152)

Holidays and Accommodation

DISCOLD HOUSE, HOTEL,
200 single rooms, £25, 200
week, partial board, April
1985. Tel: (011) 703 4179.
(65155) H25

Awards

THE EDGAR GRAHAM MEMORIAL PRIZE

The School of Oriental and African Studies (University of London) announces a major new book prize for a published work on modern agricultural and industrial development in Asia and/or Africa.

An award of around £1000 will be made every two years, beginning in May 1986. First submissions are now invited from publishers by 31 March 1985, of books in English.

Two copies of any work submitted should be sent to Miss D. Mathias, Editorial Secretary, SOAS, Malet Street, London WC1E 7HP (tel. 01-637 2388 ext. 338), from whom further particulars may be obtained.

(17482)

Colleges and Institutes of Technology

Lothian Regional Council

NAPIER COLLEGE OF
COMMERCE AND TECHNOLOGY
HEAD OF DEPARTMENT OF BANKING AND
INSURANCE

Salary: HOD Grade 12 £17,391 - (under review)

The Department offers courses leading to the examinations of several professional bodies and, in addition, staff of the Department teach on a number of College degree and diploma courses. Applicants should hold a degree and/or relevant professional qualification and have substantial professional/commercial and teaching experience. Application forms and further particulars from: Administrative Officer (Personnel), Napier College of Commerce and Technology, Colinton Road, Edinburgh EH10 3DT. Tel: (031) 447-7020 ext. 586.

(17488)

Colleges and Institutes of Higher Education

CANTERBURY, CHRIST CHURCH

COLLEGE OF HIGHER EDUCATION

Principal Lecturer and

Head of the Religious

Studies Department

Applications are invited for the above post at the Church of England College to take effect from the beginning of the Autumn term 1985. Salary: £13,095 - £16,487 p.a.

The college has approximately 1000 students and offers BA, BEd and BSc degrees, PGCE, advanced diplomas and higher degrees in Education.

For further details write to Mrs. Joan Long, Personal Assistant to the Principal, Canterbury, a stamped addressed envelope, to whom applications should be sent not later than 11 February 1985.



Roehampton
Institute

Digby Stuart
Proctor
Southlands
Whitelands

The Institute seeks to make the following appointment from 1 September 1985.

HEAD OF DIVISION
(FIRST DEGREES)
In the School of Education

The Head of Division will be responsible to Professor Martin Shipman, the Dean of the School of Education, for all courses in Education leading to first degrees (BA, BEd and BEd in Service). The Division contains some 1300 students. Experience in management or course leadership is essential. Preference will be given to candidates with primary or middle school teaching experience.

Salary: £13,095 - £16,487 p.a. (under review). Applications and further particulars may be obtained by writing to R. A. Fenwick, Assistant Secretary, Roehampton Institute of Higher Education, Digby Stuart College, Roehampton Lane, London SW16 6PH. Closing date for applications: Friday 8 February 1985.

(17487)

South Glamorgan County Council

WELSH COLLEGE OF MUSIC AND DRAMA

Principal: Peter Fletcher

Vacancy for

PRINCIPAL LECTURER:

ORCHESTRAL STUDIES

Applications are invited for the above post which will become vacant on 1 April 1985. The successful candidate will be responsible for the management and operation of a unit which is involved in the work of validating courses in education (mainly the initial training and in-service training of teachers) for liaison with, and advice to, institutions and other bodies and with Chairmen and members of the Board and Panels involved in this work.

Candidates for the post should be well qualified academically and/or professionally and should have appropriate teaching and/or academic administrative experience. In addition experience of managing both staff and other resources is desirable.

The salary on appointment will be within the scale £17,138-£21,144 p.a. including London weighting. Further particulars may be obtained from: Assistant Secretary (Personnel), CNA, 44-45 Gray's Inn Road, London, WC1X 8BP. Tel: 01-479 4411.

By email applications giving details of qualifications and experience and the names of two referees should be submitted by 1 February 1985. (17476)

Colleges and Institutes of Higher Education continued

South Glamorgan County Council
WELSH COLLEGE OF MUSIC AND DRAMA
Principal: Peter Fletcher

Vacancy for
HEAD OF DRAMA

Applications are invited for this important post which arises as a result of the promotion of the present holder to Vice Principal of the College. The College occupies a purpose built building in Cardiff Castle Grounds, adjacent to the City Centre, and provides a comprehensive style training in all professional aspects of music and drama, contained within diploma, degree and advanced certificate courses. Preference will be given to applicants with good professional acting and directing experience as well as the managerial skills to be able to develop further the work of this already distinguished department.

Salary in accordance with Burnham (Further Education) Report Group 4. £14,770-£17,138 p.a. (under review). Application forms and further details may be obtained from the Principal, Welsh College of Music and Drama, Castle Grounds, Cardiff Park, Cardiff CF1 3AB. Telephone (0222) 43854. Closing date for applications 13th February 1985. (17486)

Christ Church
College of
Higher Education
Canterbury

Two joint appointments in association with the Kent Education Committee concerned both with the provision of advisory services and resource centres for teachers and with the teaching of courses offered by the College. These courses include A, BEd and BSc degrees, PGCE, advanced diplomas and higher degrees.

1) LECTURER AND ADVISER IN MODERN LANGUAGES

2) LECTURER AND ADVISER IN PRIMARY SCIENCE EDUCATION

Salary: Lecturer £14,770-£17,138 p.a. (under review). Applications and further details may be obtained from the Principal, Christ Church College, Canterbury, enclosing a stamped addressed envelope, to whom applications should be sent not later than 1 February 1985. 118

Cambridgeshire
College of
Arts and Technology

TEMPORARY
LECTURER IN
ART HISTORY

Required for one year from September 1985 to teach seventeenth century painting (especially Dutch and Flemish) to degree level and to supervise research in Baroque and modern architecture at A level. Candidates should have a good honours degree.

Salary: £5,910-£10,515, starting point according to qualifications and experience. Date and form to be returned by 8th February, from Head of School of Art, CCAT, East Road, Cambridge CB1 1PT. Tel: (0223) 332043. H8

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THE T.H.E.S.
WHEN REPLYING
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ADVERTISEMENTS

Scholarships

Oxford
Brasenose College

GERMAINE
SCHOLARSHIPS

Proposes to elect one Senior Germaine Scholar for possibly two and possibly a Junior Germaine Scholar from October 1985. The value of Senior Germaine Scholarship is equal to that of a Junior Germaine Scholarship plus approved fees, except where the scholar holds a state grant. In which case the value is £2000 p.a. The value of the Junior Germaine Scholarship is £2000 p.a.

Candidates must be under 21, and graduates of a British University for undergraduate courses in the final year of an Honours Course.

Germanies (but not Senior Germaine) Scholarships are restricted to those not yet registered as graduate students at Oxford.

Application forms and further details obtainable from the Tutor for Overseas Students, Closing date: 6th February 1985. (41157)

University of
St Andrews
Centre for Philosophy and
Public Affairs

ROYAL BANK OF
SCOTLAND
VISITING SCHOLAR

Applications are invited for a visiting scholarship at the Centre for Philosophy and Public Affairs, made possible through the generosity of the Royal Bank of Scotland. The post, which is for one year, is open to holders of a first class honours degree in philosophy and political theory, or an equivalent level or to those who may be completing doctoral degrees.

Further details are available from the International Office, University of St Andrews, College Gate, St Andrews, Fife KY16 9AJ with whom applications (two copies) including a curriculum vitae, research proposal, and the names of two referees should be sent not later than 9 February 1985.

Administration

Council for National Academic Awards
REGISTRAR FOR EDUCATION

Applications are invited for the above post which will become vacant on 1 April 1985.

The Registrar will be responsible for the management and operation of a unit which is involved in the work of validating courses in education (mainly the initial training and in-service training of teachers) for liaison with, and advice to, institutions and other bodies and with Chairmen and members of the Board and Panels involved in this work.

Candidates for the post should be well qualified academically and/or professionally and should have appropriate teaching and/or academic administrative experience. In addition experience of managing both staff and other resources is desirable.

The salary on appointment will be within the scale £17,138-£21,144 p.a. including London weighting. Further particulars may be obtained from: Assistant Secretary (Personnel), CNA, 44-45 Gray's Inn Road, London, WC1X 8BP. Tel: 01-479 4411.

By email applications giving details of qualifications and experience and the names of two referees should be submitted by 1 February 1985. (17476)

Colleges and Departments of Art

City of Newcastle upon Tyne
Education Committee

COLLEGE OF ARTS AND TECHNOLOGY

VICE PRINCIPAL
(Group 9 £21,651)

Following the appointment of the current Vice Principal to the Principalship of a Group 9 College from Easter 1985, applications are invited for this important post in the regional capital of the North East.

Further information and application forms are available from the Personnel Office, College of Arts and Technology, Maple Terrace, Newcastle upon Tyne, NE4 7SA, to be returned, for this post only, within fourteen days of the appearance of this advertisement to: Further Education Department, Civic Centre, Barras Bridge, Newcastle upon Tyne, NE1 8PU.

HEAD OF SCHOOL
OF ART AND DESIGN

(£17,397-£19,170)

Applications are invited for the above post in a major Centre of Art and Design, to commence on or before 1st May 1985. A new building is being planned for occupation in September 1986.

Application forms and further particulars are available from the Personnel Office, College of Arts and Technology, Maple Terrace, Newcastle upon Tyne NE4 7SA, (Tel. no. [091] 273 8866 ext. 208) to be returned within fourteen days of the appearance of this advertisement. (17486)

HEAD OF
SCHOOL OF DESIGN
PORTSMOUTH

THE UNIVERSITY OF
SUSSEX
SCHOOL OF DESIGN

Applications are invited for the above post which will become vacant on 1 April 1985. The successful candidate will be responsible for the management and operation of a unit which is involved in the work of validating courses in education (mainly the initial training and in-service training of teachers) for liaison with, and advice to, institutions and other bodies and with Chairmen and members of the Board and Panels involved in this work.

Candidates for the post should be well qualified academically and/or professionally and should have appropriate teaching and/or academic administrative experience. In addition experience of managing both staff and other resources is desirable.

The salary on appointment will be within the scale £17,138-£21,144 p.a. including London weighting. Further particulars may be obtained from: Assistant Secretary (Personnel), CNA, 44-45 Gray's Inn Road, London, WC1X 8BP. Tel: 01-479 4411.

By email applications giving details of qualifications and experience and the names of two referees should be submitted by 1 February 1985. (17476)

Courses

Teesside Polytechnic

North East Biotechnology Centre

RESEARCH STUDENT

SERC Research Studentship in Biochemical Engineering at Teesside Polytechnic

The project involves an investigation of the key parameters necessary for the scale-up of fermentation processes in which micro-organisms are grown for the production of intracellular enzymes. The study will include the determination of the scale and type of responses as organisms have to a given environment and the effects these have on the processing operations.

The studentship is part of the SERC Total Technology Scheme. Applications are invited from good honours graduates in chemical and biochemical engineering, applied microbiology, biochemistry or biotechnology.

The N.E. Biotechnology Centre is a joint resource of Sunderland and Teesside Polytechnics based at Teesside.

Further details available from: Graham Street, Department of Chemical Engineering, Teesside Polytechnic, Borough Road, MIDDLEBOROUGH, Cleveland TS1 3BA. Tel: (0642) 216121 Ext. 4264. (17476)

North East London Polytechnic
DEPARTMENT OF MANAGEMENT STUDIES

Education Management
Opportunities

The following programmes of part-time study in Education Management are available through the Department of Management Studies:

M.Ed (Education Management) for students who already hold a DNB or Postgraduate Diploma in Education Management or a related field.

Diploma in Management Studies (Education) for management education for a practical, taught course involving a range of modules and an institution-based project.

M. Phil/Ph.D. by research. Courses are scheduled to run at the Department's Duncan House location, High Street, Stratford, London, E15 2JB.

For further details, contact either: The Departmental Secretary, Department of Management Studies, North East London Polytechnic, Duncan House, High Street, Stratford, London, E15 2JB. Telephone: 01-860 7722 Ext. 3306.

or The Assistant Registrar, North East London Polytechnic, Duncan House, High Street, Stratford, London, E15 2JB. Telephone: 01-860 7722 Ext. 3306.

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Adult Education continued

Field Consultant

The Adult Literacy and Basic Skills Unit (ALBSU) wish to recruit a Field Consultant to work as part of its small London based team. Candidates should have significant experience in basic communication skills work with adults including literacy, numeracy and/or English as a Second Language as well as a commitment to the development of basic education in general.

The Unit is the central focus for adult literacy and related basic skills work in England and Wales and is grant-aided by the Department of Education and Science and the Welsh Office Education Department. Among its functions, ALBSU sponsors a significant number of local development projects, allocates establishment grants to voluntary organisations, co-ordinates and provides training, produces and publishes teaching/learning materials and offers a consultancy and advisory service to local providing bodies.

ALBSU Field Consultants are based in London, although a considerable amount of travelling throughout England and Wales is an essential part of the job. The commencing salary will be between Point 42 (£13,699) and Point 49 (£15,900) (under review) on the National Joint Council Scales (Principal Officer) inclusive of London Allowance.

Further particulars and application forms may be obtained from:

The Director, Adult Literacy and Basic Skills Unit, Kingsbourne House, 229/231 High Holborn, London WC1V 7DA. Tel: 01-405 4017

Closing date for applications is 14 days from the appearance of this advertisement.

ALBSU Adult Literacy & Basic Skills Unit

ALBSU Adult Literacy & Basic Skills Unit

ALBSU Adult Literacy & Basic Skills Unit

ALBSU Adult Literacy & Basic Skills Unit

ALBSU Adult Literacy &

Research and Studentships continued

Institute of Education
University of London
Thomas Coram Research Unit
ESRC Centre for Studies in Education and Family Health

TWO RESEARCH OFFICERS

are required to work on two health care projects at the Institute of Education, London. Both projects are London-based. Appointments will be taken up as soon as possible and terminate at the end of September 1985.

1) To work on a study of parental and health visitor perceptions of child health care and health services. Research experience desirable, knowledge of one or more ethnic minority needed. Half-time appointments considered.

Salary on Research scale 1A £7,590 - £12,150 plus £1,333 London Allowance.

2) To take the main responsibility for a study of patterns of health and health care in parents with young children. Research experience in the field of the sociology of health/family studies desirable.

Salary on Research scale 1B £11,905 - £14,855 plus £1,333 London Allowance.

Further particulars and application forms from Chris Davies, Thomas Coram Research Unit, 11 Brunswick Square, London WC1N 1AZ. Tel: 01-478 3434. Ext. 482. Closing date for applications Friday 8 February. (119)

Hampshire County Council
Southampton
Institute of Higher Education

RESEARCH ASSISTANT

Applications are invited for the post of Research Assistant to undertake a project in the area of Ship Dynamics.

The appointment will be with the Department of Marine Technology and Naval Architecture and will involve the use of the College's excellent Ship Test Tank.

The post is tenable for a period of one year, normally renewable and the opportunity exists to study for a higher degree.

Applicants should hold a good honours degree in Naval Architecture or Engineering. Applications will be welcomed from students expecting to graduate in the summer of 1985.

Salary in the range £5,467 - £6,465 per annum.

Application forms and further details from: The Staffing Section, Southampton College of Higher Education, East Park Terrace, Southampton, Hants, SO9 4NW. Tel: 0703 29381. Ext. 312.

Closing date: 1st February 1985. (15147)

University of Oxford
St. Hugh's College
Invites applications for the **RAWNSLEY STUDENTSHIP IN CZECH OR POLISH LANGUAGE AND LITERATURE**

tenable for one year from 1 October 1985 and renewable for a second. The current value of the studentship is £2,384. The studentship is open to women graduates qualified to work for a research degree or a course of higher study.

Further particulars from the Tutor for Graduates, St. Hugh's College, Oxford OX4 2DQ. Tel: 01865 27444. Ext. 111. Closing date: Friday 8 Feb 1985. (1119)

Overseas

KING SAUD UNIVERSITY
QASSEM, SAUDI ARABIA
COLLEGE OF AGRICULTURE AND VETERINARY MEDICINE

Academic appointments

Professors, Associate Professors, Assistant Professors

are available in the College of Agriculture & Veterinary Medicine (Qassem Branch) on one year renewable contracts, tenable from 27 July 1985.

Applicants should be Ph.D. holders and/or holders of academic titles from accredited universities.

The College of Agriculture & Veterinary Medicine (Qassem Branch) has the following departments:

Animal Production and Breeding, Crops and Range Management, Veterinary Medicine, Horticulture and Forestry, Water and Soil, Agricultural Engineering, Agricultural Extension and Economics and Plant Protection.

Benefits include:

- * Tax free salaries based on qualifications and experience.
- * Monthly transport allowance.
- * Relocation allowance.
- * Free furnished accommodation or housing and furniture allowance.
- * Free yearly return air tickets for incumbent and family.
- * Free medical/dental care covering family.
- * 60 days annual pre-paid leave.
- * End of service gratuity.

Application forms are available by writing to the following address, stating clearly the College to which you wish to apply, and where you saw the advert.

Mr. Carmel Donachie
King Saud University Office
29 Belgrave Square
London SW1X 8BD
ONLY SUCCESSFUL APPLICANTS WILL BE NOTIFIED



NATIONAL UNIVERSITY OF SINGAPORE
School of Architecture

Applications are invited for appointments as Lecturer, Senior Lecturer, Associate Professor or Professor from candidates with suitable academic and professional qualifications and experience.

Appointees will be required to teach Architectural Design. Preference will be given to candidates who are also able to teach in one or more of the following areas:

Building Construction & Technology
Building Materials & Specifications
Building Structures
Building Services & Environmental Control
Urban Design & Planning
Landscape Architecture
History of Architecture (Modern)
History of Architecture (Western)
History of Architecture (Eastern, in particular Chinese, Indian, and South East Asian)

Architectural Design Theory
Computer Aided Design
Building Economics & Management
Professional Practice & Building Regulations (Singapore)

Gross annual emoluments range as follows:

Lecturer \$30,680 - \$3,570
Senior Lecturer \$37,590 - \$10,930
Associate Professor \$38,300 - \$13,000
Professor \$510,380 - \$14,740
(\$7021 - \$82.52 approximately)

The commencing salary will depend on the candidate's qualifications, experience and the level of appointment offered.

Leave and medical benefits are provided. Under the University's Academic Staff Provident Fund Scheme, the staff member and the University are each required to contribute at the present rate of 25% of his salary, the contribution of the staff member and the University being subject to a maximum of \$31,250 per month and \$51,750 per month respectively. The sum standing to the staff member's credit in the Fund is tax-free and may be withdrawn when the staff member leaves Singapore/Malaysia permanently.

Depending on the type of contract offered, other benefits may include: a settling-in allowance of \$51,000 (single) or \$82,000 (married), subsidised housing at nominal rentals ranging from \$5120 to \$5216 p.m., education allowance for up to three children, subject to a maximum of \$510,000 per annum per child, passage assistance and baggage allowance for the transportation of personal effects to Singapore. Staff members may undertake consultation work, subject to the approval of the University, and retain consultation fees up to a maximum of 60% of their gross emoluments in any one year.

Application forms and further information on terms and conditions of service may be obtained from:

The Director
Personnel Department
National University of Singapore
Kent Ridge
Singapore 0511

NUS Overseas Office
c/o Singapore High Commission
in London
5 Cheam Street
London SW11 8QB
U.K. Tel: (01) 235-4552 (17481)

FACULTY MEMBERS/LECTURERS

Our client seeks faculty members to work on a contract basis in the Middle East. Minimum qualifications: M.Sc. or accredited equivalent.

Also Lecturers qualified to B.Sc./M.Sc. level for:

ENGINEERING DEPARTMENT
Architecture, Civil, Mechanical, Electrical, Chemical, Nuclear, Computer, Nuclear and Industrial

OTHER DEPARTMENTS
Science, Medicine, Pharmacy, Dentistry, Allied Medical Sciences, Computer and Information Systems, Planning and Urban Design

All positions carry an attractive salary package including generous allowances and leave entitlements.

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The successful candidate will be responsible for teaching structural geology and regional/economic geology of Southern Africa at third and fourth year undergraduate level. Experience in ore geology, especially in Southern Africa, will be an advantage. Active participation in field oriented teaching and research is required.

A constructive attitude with respect to the needs and possibilities of the department is essential for the further development of this department, which is one of the youngest in this University.

Salary P8568 - P16368 p.a. Closing Date: January 30, 1985

Expatriate Staff will be entitled to contract addition at 30% of basic salary and gratuity at 25% of basic salary plus contract addition on successful completion of a two year contract.

Applications with names and addresses of three academic referees should be addressed to:

The Assistant Registrar (Staffing)
Private Bag 0022
Gaborone
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KING SAUD UNIVERSITY
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(Professors, Associate Professors, Assistant Professors)

are available in the College of Education, King Saud University, on one year renewable contracts, tenable from 27 July 1985.

Applicants should be Ph.D. holders and/or holders of academic titles from accredited universities.

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Application forms are available by writing to the following address, stating clearly the college to which you wish to apply:

Ms. Carmel Donachie,
King Saud University Office,
29 Belgrave Square,
London SW1 8QB

ONLY SUCCESSFUL APPLICANTS WILL BE NOTIFIED (17485)

University of Botswana

Applications are invited for the position of Lecturer in the Department of Geology beginning March 1985.

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A constructive attitude with respect to the needs and possibilities of the department is essential for the further development of this department, which is one of the youngest in this University.

Salary P8568 - P16368 p.a. Closing Date: January 30, 1985

Expatriate Staff will be entitled to contract addition at 30% of basic salary and gratuity at 25% of basic salary plus contract addition on successful completion of a two year contract.

Applications with names and addresses of three academic referees should be addressed to:

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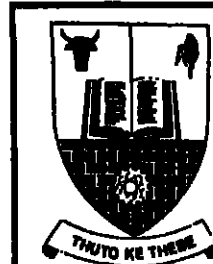
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Applicants should have a post-graduate degree in adult education and experience in administering, teaching and writing distance education courses in the Third World.

Salary: P8568 - P16368 p.a. Closing Date: February 15th, 1984

Expatriate Staff will be entitled to contract addition at 30% of basic salary and gratuity at 25% of basic salary plus contract addition on successful completion of a two year contract.

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The Academic Service,
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Appointments according to qualifications and experience will be made within the salary range R34 070 to R40 682 per annum, with an annual bonus of nearly one month's salary and attractive staff benefits.

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The University's policy is not to discriminate on the grounds of sex, race or religion. Further information on the implementation of this policy is obtainable on request.

Applications should be sent to the Registrar, 5A Universities Office, Chichester House, 278 High Holborn, London WC1V 7HE.

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